

EXHIBIT E

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REPORT REGARDING

LARBALL PUBLISHING COMPANY, INC., *et al.* v. DUA LIPA, *et al.*

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I. INTRODUCTION AND SUMMARY

1. I am a musicologist on the full-time faculty at New York University where my rank is Professor of Music, and my title is Director Emeritus of all studies (B.M. through Ph.D.) in Music and the Performing Arts in NYU's Steinhardt School. I have written and co-written published books and articles (in peer-reviewed journals) regarding music analysis, methodologies in music research, and other scholarly areas related to music. I currently sit on two editorial boards of peer-reviewed scholarly journals in music respectively published by Indiana University Press and University of Illinois Press. I have been an active music copyright consultant for record, music publishing, motion picture companies, artists, and other individuals in the United States and abroad for more than 25 years and I have given testimony at landmark trials such as on behalf of Andrew Lloyd Webber in *Repp v Webber* (1998, *The Phantom of the Opera*), on behalf of Led Zeppelin in *Skidmore v Led Zeppelin* (2016, "Stairway to Heaven"), and on behalf of Ed Sheeran in *Griffin v Sheeran* (2023, "Thinking Out Loud") to name only three. I have given invited lectures on music copyright at Harvard University Law School in each of the last thirteen years, at Columbia University Law School over a period of fifteen years, at other law schools, and for companies (such as Netflix and others) and organizations (such as the Los Angeles Copyright Society and others). I have given many panel presentations for organizations such as the Copyright Society of the United States and others. I have also presented several peer-reviewed papers regarding music copyright at meetings of the American Musicological Society GNY. My *curriculum vitae* is attached as **Appendix 1**.

2. I have been asked to complete musicological analyses of the compositions embodied in Plaintiffs' (1) "Wiggle and a Giggle All Night" written by L. Russell Brown and Sandy Linzer, recorded by Cory Daye, and released in 1979 and (2) "Don Diablo" recorded by Miguel Bosé and released in 1980¹ compared with Defendants' (1) "Levitating", recorded by Dua Lipa and released in March 2020 as track

¹ Plaintiffs claim to have later become copyright holder of "Don Diablo".

5 on Lipa's album *Future Nostalgia*, and (2) "Levitating (feat. DaBaby)", recorded by Dua Lipa and DaBaby and released as track 12 on *Future Nostalgia*. Unless noted otherwise, all references to "Levitating" are cumulative to both "Levitating" by Dua Lipa and "Levitating (DaBaby)" by Dua Lipa and DaBaby.²

3. My comparative musicological analyses of the similarities and differences between the musical compositions (1) "Wiggle and a Giggle All Night" (hereafter, "Wiggle") and "Levitating" and (2) "Don Diablo" and "Levitating" include assessing (a) whether or not there is musicological evidence of copied expression in "Levitating" from either "Wiggle" or "Don Diablo", (b) whether or not any similarities or differences are significant from a musicological perspective, and (c) whether or not any shared similarities comprise commonplace musical building blocks, public domain elements, or otherwise exist in "prior art" (*i.e.*, compositions that predate "Wiggle's" 1979 release), which would be filtered out from consideration.

4. It is my understanding that fact discovery has not yet begun in this matter. I reserve the right to amend/modify/supplement this report on the basis of such discovery, or otherwise as new information becomes available.

I. A. Summary of Findings

5. On the basis of my musicological analyses, which are presented below, it is my professional opinion that there are no significant structural, harmonic, rhythmic, melodic, or lyrical similarities, individually or in the aggregate, between (1) "Wiggle" and "Levitating" or (2) "Don Diablo" and "Levitating". The only similarity at issue is that "Wiggle", "Don Diablo", and "Levitating" include a rapidly sung descending melody in which notes are repeated.

² Outside of structural differences between "Levitating" and "Levitating (feat. DaBaby)", which are explained below, there is no new expression in "Levitating (feat. DaBaby)" that is at issue with Plaintiffs' songs; all of the expression that is at issue in "Levitating (feat. DaBaby)" is in "Levitating". DaBaby's rapped expression is not at issue. Therefore, all references to "Levitating" in this report are cumulative to both "Levitating" and "Levitating (feat DaBaby)" with the qualification that the timings are for "Levitating" unless otherwise specified.

6. First, rapidly sung melodies that assign notes to each syllable (sometimes termed “patter song” or “patter style”) have been a musical building block for centuries and (by way of example) exist in the public domain in operas by Mozart and Rossini and in operettas by Gilbert and Sullivan.

7. Second, the scale degrees³ in the descending melodies (1) in “Wiggle” and “Levitating” and (2) in “Don Diablo” and “Levitating” are significantly different, as they employ different scale positions. Thus, as defined in *The Harvard Dictionary of Music*, the pitches in the melodies at issue function in significantly different ways.

8. Third, the descending melodies at issue in “Wiggle” and “Don Diablo” have many differences as compared to the melody at issue in “Levitating”.

9. Fourth, descending melodies with repeating notes are commonplace both in popular songs and public domain piano works that predate “Wiggle” and “Don Diablo”. Indeed, before the release of “Wiggle” and “Don Diablo”, “Contestación a La Casa en el Aire” (1958), a popular Latin American song with substantial resemblance to this aspect of “Wiggle” and “Don Diablo” was widely recorded and released in several countries, including the United States. Moreover, to name only two more examples, Carl Czerny (d. 1857), a very well-known composer of many piano studies books and a notable student of Beethoven, wrote rapidly descending melodies that embody the musical building block at issue in the 19th century, and the huge hit song, “Stayin’ Alive”, released in 1977 by The Bee Gees – two years prior to “Wiggle” – also embodies the similarity at issue. Several other examples of descending melodies with repeating notes in prior art are transcribed and analyzed below, and a wide array of works continues to use this common and preexisting musical building block.

³ Scale degrees, numbered 1-7, are “[t]he numbered positions of individual pitches within a major or minor scale...each pitch of a scale functions in a particular way with respect to the others....” See “Scale degree” in *The Harvard Dictionary of Music* (Fourth Edition, 2003, Harvard University Press p. 758).

10. While Plaintiffs' "Wiggle" and "Don Diablo" are in major keys, by way of difference, "Levitating" is in a minor key. Thus, the "modality" of "Wiggle" and "Don Diablo" is different from the modality of "Levitating". Moreover, the chord progressions are significantly different in "Wiggle" as compared with "Levitating" and in "Don Diablo" as compared with "Levitating". Therefore, the musical building block descending melodies not only consist of melodic differences, including completely different scale degrees, but those melodies are also heard within significantly different harmonic (chord progressions) and modal (major as opposed to minor keys) contexts in Plaintiffs' two songs and "Levitating".

11. The underlying instrumental music is significantly different between (1) "Wiggle" and "Levitating" and between (2) "Don Diablo" and "Levitating".

12. "Wiggle" and "Levitating" and "Don Diablo" and "Levitating", in their entirety, are significantly different. Outside of the similar use of a musical building block in the vocal melody in the Verse, the overall structure and the arrangement of elements throughout the songs are significantly different. The vocal melodies at issue are in a portion of the Verses of the three songs; the vocal melodies in the other portions of the Verses and in the entirety of the rest of the songs are significantly different between "Wiggle" and "Levitating" and between "Don Diablo" and "Levitating".

13. Upon filtering musical building blocks and commonplace elements found in prior art, only isolated and fragmentary notes remain between "Wiggle" and "Levitating" and between "Don Diablo" and "Levitating".

14. The analysis I have conducted demonstrates that any similarities between "Wiggle" and "Levitating" or between "Don Diablo" and "Levitating" are not the result of copying but are instead the result of independent creation.

I. B. Materials Used

15. The following materials were used in this report:

- (a) an audio of "Wiggle" attached as Track 1 on **Audio Exhibit 1**;
- (b) an audio of "Don Diablo" attached as Track 2 on **Audio Exhibit 1**;

- (c) an audio of “Levitating” as recorded by Dua Lipa and attached as Track 3 on **Audio Exhibit 1**;
- (d) an audio of “Levitating (feat. DaBaby)” as recorded by Dua Lipa and DaBaby, and attached as Track 4 on **Audio Exhibit 1**;
- (e) the published sheet music of “Levitating” in its recorded key of B minor and in the key of A minor that I downloaded from musicnotes.com and attached as **Visual Exhibit A**; and
- (f) prior art with YouTube links and/or sheet music sources and my transcriptions; and
- (g) music information websites, such as www.discogs.com and <https://frontera.library.ucla.edu/>.

I. C. Overall Methodology

16. I completed comparative analyses of the compositions embodied in (1) “Wiggle” and “Levitating” and (2) “Don Diablo” and “Levitating” using the following overall methodology:

- (a) analyses of (1) “Wiggle” and “Levitating” and (2) “Don Diablo” and “Levitating” in their entireties;
- (b) analyses of each of their component elements of form/structure, melody, rhythm, harmony, and lyrics, individually and in combination;
- (c) analyses of prior art;
- (d) analyses of (1) “Wiggle” and “Levitating” and (2) “Don Diablo” and “Levitating” in their entireties within the context of the analyses of their component parts and prior art; and
- (e) filtering out of similar elements in (1) “Wiggle” and “Levitating” and (2) “Don Diablo” and “Levitating” that comprise commonplace musical building blocks or public domain elements, or that otherwise exist in prior art.

I. D. Musical Compositions and Basic Terminology

17. A musical composition is comprised of certain distinct and identifiable elements that can be analyzed separately and in combination. When analyzing two compositions, some elements are more fundamental than others, namely: (1) structure; (2) harmony; (3) rhythm; and (4) melody; and, when present (5) lyrics.⁴ On the other hand, similarities or differences in the key (e.g., if two compositions are in the same key or in different keys but in the same modality, namely both in major keys or both in minor keys), tempo (i.e., how fast or slow works are performed), meter (e.g., 4/4 time), instrumentation (e.g., the use of guitars, drums, synthesizers, etc.), and style or genre (e.g., hip hop, country, etc.) are less significant insofar as they represent musical building blocks and/or commonplace practices used in countless musical compositions. Brief definitions of the five enumerated elements listed above follow.

(a) **Structure** is the organization of musical units or musical groups, often dictated by the development of the melody and/or lyrics. The larger sections of songs are generally referred to as “Verses” and “Choruses”. The material within Verses and Choruses consists of “phrases”.

(b) **Harmony** refers to the tonal relationship of pitches that sound simultaneously, especially (but not exclusively) with respect to the use and organization of “chords”.⁵ A sequence of chords is referred to as a “harmonic (or chord) progression”. “Harmonic rhythm” is the rate of change of chords.⁶

⁴ For example, Ronald S. Rosen writes: “Thus, from the copyright perspective (and in the view of many musical professionals) ...the basic elements of music are: melody, harmony, rhythm, and form/structure.” (Ronald S. Rosen, *Music and Copyright*, Oxford University Press, 2008, p. 156.)

⁵ See “Harmony” in *The Harvard Dictionary of Music* (Fourth Edition, 2003, Harvard University Press, p. 379) and *The New Grove Dictionary of Music and Musicians* (Oxford University Press, Second Edition, 2001, Vol. 10, p. 858).

⁶ See “Harmonic rhythm” in *Harvard* (p. 376) and *Grove* (Vol. 10, p. 854).

(c) **Rhythm** refers to the pattern and organization of the time values of sounds and silences as well as the overall rhythmic flow and feel in musical time.⁷

(d) **Melody** is a single line of music that consists primarily of a succession (i.e., a sequence or order) of pitches and the rhythmic durations of those pitches within a melodic phrase structure. “Pitch” is the specific high or low placement of a musical sound, often identified within a musical scale.⁸

(e) **Lyrics** are the words (or text) that are sung or spoken in a song.

II. ANALYSIS OF “WIGGLE” AND “LEVITATING”⁹

II. A. Structure/Form

Any Similarity in the Overall Structures Is Commonplace and There Are Significant Structural Differences

18. A structural chart provides a map of the structural sections in a musical composition. The charts of the respective structures in “Wiggle” and “Levitating” presented immediately below include the number of bars¹⁰ in each section as well as the starting time of each section within 1 second of beat 1 and the name of each structural section.

⁷ See “Rhythm” in *Harvard* (p. 723) and *Grove* (Vol. 21, p. 277).

⁸ See “Melody” in *Harvard* (p. 499) and *Grove* (Vol. 16, p. 363).

⁹ An analysis of “Don Diablo” and “Levitating” is presented in a separate section, later in this report.

¹⁰ A “bar” (also termed a “measure”) is a unit of musical time demarcated by vertical lines termed “bar lines.” In 4/4 time or “meter”, a bar consists of four quarter beats.

“WIGGLE”			“LEVITATING”		
STRUCTURAL CHART			STRUCTURAL CHART		
00:01	Introduction	10.5 bars	00:00	Introduction	4 bars
00:24	Verse 1	10 bars	00:10	Verse 1	8 bars
00:47	Chorus 1	8 bars	00:28	Pre-chorus 1	4 bars
01:05	Post-chorus 1	3 bars	00:38	Chorus 1	8 bars
01:12	Verse 2	10 bars	00:56	Re-introduction	2 bars
01:34	Chorus 2	8 bars	01:01	Verse 2	8 bars
01:52	Post-chorus 2	7 bars	01:20	Pre-chorus 2	4 bars
02:08	Verse 3	10 bars	01:29	Chorus 2	8 bars
02:31	Chorus 3	8 bars	01:48	Post-chorus 1	8 bars
02:49	Chorus 4	8 bars	02:06	Bridge	8 bars
	(ends at 3:07 including fade)		02:25	Pre-chorus 3	4 bars
*10.5 bars” = 10 bars in 4/4 time +			02:34	Chorus 3	4 bars
1 bar in 2/4 time			02:44	Post-chorus 2	8 bars
			03:02	Chorus 4	8 bars
			(ends at 3:28)		

19. As shown in the comparative chart above, “Wiggle” and “Levitating” both have Introduction, Verse, Chorus, and Post-chorus sections which are building block structural elements in popular music. However, there are many structural differences such as:

- The Introduction in “Wiggle” is 10.5 bars in duration which is more than two and a half times longer than the Introduction in “Levitating” which is 4 bars.
- Verse 1 in “Wiggle” is followed by Chorus 1, but Verse 1 in “Levitating” is followed by Pre-chorus 1 (and this difference continues with respect to Verse 2 in “Wiggle” and “Levitating”).

- Chorus 1 in “Wiggle” is followed by Post-chorus 1, but Chorus 1 in “Levitating” is followed by a Re-introduction.
- Post-chorus 1 in “Wiggle” is followed by Verse 2, but Post-chorus 1 in “Levitating” is followed by a Bridge.
- Chorus 3 in “Wiggle” is followed by Chorus 4, but Chorus 3 in “Levitating” is followed by Post-chorus 2.
- While there are three Pre-choruses in “Levitating”, there is no Pre-chorus at all in “Wiggle”.
- While there is a Re-introduction in “Levitating”, there is no Re-introduction section in “Wiggle”.
- While there is a Bridge in “Levitating”, there is no Bridge in “Wiggle”.

20. The expression at issue is in the Verses of “Wiggle” and “Levitating”. No other sections embody expression at issue between “Wiggle” and “Levitating”. As shown in the structural chart of “Levitating” above, there are a total of 86 bars (measures) in “Levitating”. As shown below, only 6 bars out of each 8-bar Verse in “Levitating” contain expression at issue. Since there are only two Verses in “Levitating”, only 12 bars (approximately 14%) of the total of 86 bars include melodic expression at issue. Moreover, during those 12 bars at issue, there are significant differences in harmony and in the instrumental music, including the rhythm of the instrumental music. Thus, the harmonic and rhythmic contexts of the melodies at issue are marked by significant harmonic and rhythmic differences. Importantly, the melodic similarity is merely the use of a musical building block found in prior art dating back to at least the 19th century and that is found in popular music that predates the release of “Wiggle”.

The Structures of the Introductions in “Wiggle” and “Levitating” Are Significantly Different

21. The structures of the Introductions in “Wiggle” and “Levitating”, which open both songs, are significantly different. This is shown in Musical Examples 1(a) and

1(b) below in which the ten-and-one-half-bars Introduction in “Wiggle” is on the top staff and the four-bar Introduction in “Levitating” is on the bottom staff.

22. While “Wiggle” is recorded in the key of E major, “Levitating” is recorded in the key of B minor. Thus, the “modality” of “Wiggle” (which is in a major key) is different from the modality of “Levitating” (which is a minor key). In order to facilitate a comparative musicological analysis of the music in “Wiggle” and “Levitating” and in keeping with standard musicological practices, the music is transposed¹¹ to comparable keys. ***There are two principal ways of comparing music in different modes:*** (1) in “parallel” keys and (2) in “relative” keys. So as to demonstrate both methods, the comparative transcriptions in this report transpose the music of both songs (1) to the same (“parallel”) pitch center, in which case “Wiggle” is transposed to the key of C major (which has no sharps or flats) and “Levitating” is transposed to the key of C minor (which has three flats) and (2) to corresponding “relative” key signatures (each with no sharps or flats), in which case “Wiggle” is transposed to the key of C major and “Levitating” is transposed to the key of A minor. For example, Musical Example 1(a) below provides a comparative transcription of the Introductions of “Wiggle” and “Levitating” transposed into parallel keys (C major and C minor), while Musical Example 1(b) below provides the same comparison transposed into the relative keys of C major and A minor. In these examples, “Wiggle” is on the top staff and “Levitating” is on the bottom staff.¹²

¹¹ “Transposition” is the raising or lowering of all the notes by the same interval. (See *The New Grove Dictionary of Music and Musicians*, Vol. 25, p. 702.)

¹² For reasons of space the body of this report does not always include both methods of comparison (parallel and relative). Where only one is shown, the other is provided in **Visual Exhibit B** attached to this report.

MUSICAL EXAMPLE 1(a)**“Wiggle” / “Levitating” Introduction (Parallel keys)**

INTRO 0:00

"Wiggle and a Giggle All Night" 0:00

N.C. steel dr. drum machine enters

INTRO 0:00

Cm⁷ Gm⁷ Fm⁷ Cm⁷

"Levitating" 0:00

3 C Dm C

Ooh____ ah____ Ooh____ ah____

Gm⁷ Fm⁷ Cm⁷

7 Dm C steel dr.

Ooh____ ah Ooh____ ah Ooh____ ah I was

MUSICAL EXAMPLE 1(b)**"Wiggle" / "Levitating" Introduction (Relative keys)**

INTRO 0:00

"Wiggle and a Giggle All Night" 0:00

N.C. steel dr. drum machine enters

INTRO 0:00

Am⁷ Em⁷ Dm⁷ Am⁷

"Levitating" 0:00

3 C Dm C

Ooh__ ah__ Ooh__ ah__

Em⁷ Dm⁷ Am⁷

7 Dm C steel dr.

Ooh__ ah Ooh__ ah Ooh__ ah I was

23. As shown in Musical Examples 1(a) and 1(b) above, the Introduction in "Wiggle" is 10.5 bars in duration, i.e., 10 bars in 4/4 meter (with four quarter beats per bar) followed by one (half) bar in 2/4 meter (with two quarter beats per bar). By way of difference, the Introduction in "Levitating" is only 4 bars. As shown in Musical Examples 1(a) and 1(b), the bars on the bottom staff (representing "Levitating") are empty starting at bar 5 because the Introduction ends at bar 4.

24. The chord progressions are completely different in the “Wiggle” and “Levitating” Introductions, under either method of transcription. The harmonic rhythm is completely different with chords in “Wiggle” changing after one bar (starting in bar 3) or after two bars (such as, in the parallel key comparison, the “Dm” chord in bars 4-5, the “C” chord in bars 6-7, and the “Dm” chord in bars 8-9). By way of significant difference, there are consistently two chords per bar in all four bars (1-4) of “Levitating”.

25. Moreover, the top notes of the chords are significantly different. In “Wiggle”, the intervals (i.e., the space between two notes) between the top notes in the chords are mainly marked by “leaps” (i.e., skipping over adjacent notes). By way of difference, the intervals between the top notes in the chords in “Levitating” are wholly “stepwise” (i.e., moving from one scale degree to an adjacent scale degree¹³) and they are confined to only two adjacent notes, i.e. E-flat and F in the parallel-key transcription and C and D in the relative-key transcription.

26. The rhythmic flow in the Introductions is completely different in “Wiggle” and “Levitating”. “Wiggle” consists of different note values including sixteenth notes, eighth notes, “dotted” eighth notes (whose duration is equal to three sixteenth notes), quarter notes, dotted quarter notes (whose duration is equal to three eighth notes), half notes, and “tied” half notes. By way of complete difference, the rhythmic flow in the entire 4-bar “Levitating” Introduction consists strictly of quarter notes. Furthermore, while there are many “syncopations” (i.e., interruptions of the beat¹⁴) in the “Wiggle” Introduction there are no syncopations at all in the “Levitating” Introduction.

27. In summary, on the basis of my analysis, in addition to the fact that both songs start very differently, I found that there are no significant overall structural similarities but there are very significant structural differences between “Wiggle” and “Levitating”. I found no structural similarities that suggest that any structural practices in “Levitating” were copied from “Wiggle”.

¹³ See “Stepwise” in *Harvard* (p. 840).

¹⁴ See “Syncopation” in *Harvard* (p. 861).

Structures in “Levitating” and “Levitating (feat. DaBaby)”

28. As noted above, as compared with “Levitating”, there is no new expression in “Levitating (feat. DaBaby)” that is at issue with “Wiggle” or “Don Diablo”. As shown in the comparative structural charts of Defendants’ “Levitating” and “Levitating (feat. DaBaby)” immediately below, the order of structural sections is the same with the exception that the 2-bar Re-introduction in “Levitating” is omitted in “Levitating (feat. DaBaby)”. Notably, Dua Lipa does not sing Verse 2 in “Levitating (feat. DaBaby)” and DaBaby’s vocal in Verse 2 does not include the descending melody at issue. In addition, the durations of the Introduction and Chorus 4 are halved in “Levitating (feat. DaBaby)” as compared with “Levitating”. Finally, while the Introduction in “Levitating” does not include a vocal part, the opening of the Introduction of “Levitating (feat. DaBaby)” contains a vocal by DaBaby which is not at issue.

“LEVITATING”			“LEVITATING (FEAT. DABABY)”		
STRUCTURAL CHART			STRUCTURAL CHART		
00:00	Introduction	4 bars	00:01	Introduction	2 bars
00:10	Verse 1	8 bars	00:06	Verse 1	8 bars
00:28	Pre-chorus 1	4 bars	00:24	Pre-chorus 1	4 bars
00:38	Chorus 1	8 bars	00:33	Chorus 1	8 bars
00:56	Re-introduction	2 bars	00:52	Verse 2	16 bars
01:01	Verse 2	8 bars	01:29	Pre-chorus 2	4 bars
01:20	Pre-chorus 2	4 bars	01:39	Chorus 2	8 bars
01:29	Chorus 2	8 bars	01:57	Post-chorus 1	8 bars
01:48	Post-chorus 1	8 bars	02:16	Bridge	8 bars
02:06	Bridge	8 bars	02:35	Pre-chorus 3	4 bars
02:25	Pre-chorus 3	4 bars	02:44	Chorus 3	4 bars
02:34	Chorus 3	4 bars	02:53	Post-chorus 2	8 bars
02:44	Post-chorus 2	8 bars	03:12	Chorus 4	4 bars
03:02	Chorus 4	8 bars		(ends at 3:23)	
	(ends at 3:28)				

II. B. Harmony

The Harmony Is Significantly Different and No Harmonic Similarities Exist

29. The “key” of a musical composition identifies “the tonal center or tonic...defined in terms of the particular major or minor scale from which its principal pitches are drawn”.¹⁵ In addition, *The Harvard Dictionary of Music* (at p. 442) explains that there are two main types of keys, “major and minor”. As explained above, “Wiggle” is recorded in the key of E major but by way of difference, “Levitating” is recorded in the key of B minor. Thus, the “modality” of “Wiggle” and “Levitating” is different. As shown below, the harmony (i.e., the chord progressions and the harmonic rhythm) in “Wiggle” and “Levitating” is significantly different.

30. In **Visual Exhibit C** attached to this report, the melody, chords, and lyrics at the beginning of Verse 1 through to the end of Chorus 1 are transcribed in “parallel” keys (with “Wiggle” in C major and “Levitating” in C minor) followed by “relative” keys (with “Wiggle” in C major and “Levitating” in A minor). Structural names (e.g., Verse, Chorus) and their respective start times in the “Wiggle” and “Levitating” sound recordings are in rectangular boxes at the start of each structural section in the comparative transcriptions.¹⁶

The Chord Progressions in “Wiggle” and “Levitating” Are Significantly Different

31. The chord progressions in the Verses of “Wiggle” and “Levitating” (which are the only sections at issue) are charted immediately below in “parallel” keys: “Wiggle” in the key of C major and “Levitating” in the parallel key of C minor.¹⁷

¹⁵ See “Key” in *Harvard*, p. 442.

¹⁶ In keeping with standard musicological practices, the melodies at issue in comparative transcriptions throughout this report are transcribed in the same octave to facilitate their analysis.

¹⁷ An uppercase letter represents a major chord. (Thus, “C” is a “C major chord”.) A lowercase “m” after an uppercase letter represents a minor chord. (Thus, “Cm” is a “C minor chord”.) A “7” represents an additional pitch that is the interval of a 7th above the “root” (or name) of the chord. (Thus, “Cm7” is a “C minor chord with an added B-flat pitch” because the pitch “B-flat” is the interval of a 7th above the pitch C, which is the

	<u>bar 1</u>	<u>bar 2</u>	<u>bar 3</u>	<u>bar 4</u>
"Wiggle":	C	G	G/D G	G/D G C
"Levitating":	Cm7 Gm7	Fm7 Cm7	(Cm7) Gm7	Fm7 Cm7
	<u>bar 5</u>	<u>bar 6</u>	<u>bar 7</u>	<u>bar 8</u>
"Wiggle":	(C)	G7	(G7)	C
"Levitating":	(Cm7) Gm7	Fm7 Cm7	(Cm7) Gm7	Fm7 Cm7

32. As shown in the comparative chord chart immediately above and transcribed (in both "parallel" and "relative" keys) in **Visual Exhibit C**, in bars 1-4, the chord progressions and the overall harmonic contexts are significantly different between "Wiggle" and "Levitating" because (as charted above):

- While there is a C (major) chord in "Wiggle", there is no "C" chord in "Levitating".
- While there is a G (major) chord in "Wiggle", there is no "G" chord in "Levitating".
- While there is a G/D chord in "Wiggle", there is no G/D chord in "Levitating".
- While there is a Cm7 chord in "Levitating", there is no Cm7 chord in "Wiggle".

"root" of a C minor chord.) The pitch that follows a "/" sign is the lowest pitch of the chord. (Thus, "G/D" is a G major chord with the pitch "D" as the lowest pitch of the chord.) When there is no "/" sign, the root or name of the chord is the lowest pitch of the chord. Parentheses around the "Cm7" chord in bar 3 of "Levitating" represent the continuation of the Cm7 in bar 3 from bar 2.

- While there is a Gm7 chord in “Levitating”, there is no Gm7 chord in “Wiggle”.
- While there is an Fm7 chord in “Levitating”, there is no Fm7 chord in “Wiggle”.

33. The very significant harmonic differences specified in the bullets immediately above regarding bars 1-4 of the Verses in “Wiggle” and “Levitating” continue in bars 5-8 as charted above and as transcribed in **Visual Exhibit C**.

34. The chord progression in the Verse of “Wiggle” continues in bars 9 and 10 (respectively with G7 and C chords every two beats), but there are no corresponding bars 9-10 in the Verse of “Levitating”: (1) while the Verses in “Wiggle” are each 10 bars in duration, by way of difference, the Verses in “Levitating” are 8 bars in duration and (2) the G7 and C chords respectively in bars 9 and 10 of “Wiggle” are different from the chords in “Levitating”.

The Harmonic Rhythm in “Wiggle” and “Levitating” Is Significantly Different

35. As defined and cited above, harmonic rhythm is the rate of change of chords. As shown in the comparative chord chart above and as transcribed in **Visual Exhibit C**, the harmonic rhythm in “Wiggle” and “Levitating” is significantly different because:

- In bar 1, while the harmonic rhythm in “Wiggle” is one chord per bar, it is two chords per bar in “Levitating”.
- In bar 2, while the harmonic rhythm in “Wiggle” is one chord per bar, it is two chords per bar in “Levitating”.
- In bar 3, the harmonic rhythm in “Wiggle” and “Levitating” is two chords per bar although the Cm7 chord in bar 3 carries over from bar 2 in “Levitating”, which is not the case with the G/D chord in bar 3 of “Wiggle”. Both chords in bar 3 of “Wiggle” are variations of the same (G) chord.

- In bar 4, while the harmonic rhythm in “Wiggle” is three chords per bar, it is two chords per bar in “Levitating”.
- In bar 5, while the harmonic rhythm in “Wiggle” is one (carried over) chord per bar, it is two chords with the first chord carried over in “Levitating”.
- In bars 6 and 7, while there is only one (G7) chord in “Wiggle”, there are three chords in bars 6-7 in “Levitating”.
- In bar 8, while the harmonic rhythm in “Wiggle” is one chord per bar, there are two chords in “Levitating”.

36. Thus, in seven out of eight bars of Verse 1 the harmonic rhythm is different in “Wiggle” and “Levitating”. Further, while the harmonic rhythm is two chords per bar in the Verse of both songs in bar 3, that commonplace harmonic rhythm is surrounded by significantly different harmonic rhythms in proximate bars.

37. Moreover, as shown in **Visual Exhibit C**, the chord progressions and harmonic rhythm in subsequent sections of “Wiggle” and “Levitating” are also significantly different.

38. In summary, on the basis of my analysis, I found that there are no significant harmonic similarities between “Wiggle” and “Levitating”, but there are very significant harmonic differences. Moreover, I found no musicological evidence that any harmonic expression in “Levitating” was copied from “Wiggle”.

II. C. Rhythm

39. The tempo (i.e., performance speed) of “Wiggle” is approximately 106 beats per minute (hereafter, BPM). The tempo of “Levitating” is 103 BPM.

40. “Wiggle” and “Levitating” are in 4/4 meter, also known as “common time”, which is a commonplace musical building block. Countless musical compositions over centuries and in multiple genres share this building block meter in which there are four quarter beats in each bar. By way of difference, there is a 2/4 meter (i.e., a bar with only 2 quarter beats) at the end of the Introduction in “Wiggle” (see Musical Example 1 above), but there are no 2/4-meter bars in “Levitating”.

41. The rhythmic similarity between the vocal melodies in a portion of the Verses in “Wiggle” and “Levitating” – namely, the singing of rapid, often repeated, notes “syllabically” (one syllable per note) – is a musical building block, and is a device sometimes called “patter song”¹⁸. This musical building block has been in common use for more than two centuries and is found in the operas of Mozart (in the second half of the 18th century) and Rossini (in the first half of the 19th century) to name only two opera composers, and in the operettas of Gilbert and Sullivan in the second half of the 19th century. A well-known example of patter song is “I Am the Model of a Major General” from Gilbert and Sullivan’s (1879) *The Pirates of Penzance*, starting at 0:39 in the link below.

<https://www.youtube.com/watch?v=nVFiRXch7Pk>

42. Another famous example of patter song is “So It Really Doesn’t Matter” from Gilbert and Sullivan’s (1887) *Ruddigore (The Witches Curse)* at the link below.

<https://www.youtube.com/watch?v=zmBri9kvptE>

43. Thus, rapid syllabic singing is a centuries-old idea. Moreover, as shown in the sections of this report on “Melody” and on “Prior Art” below, the melodic similarity between “Wiggle” and “Levitating” is merely a descending scale in which the notes of the scale are repeated, which is a commonplace musical building block, with the use of repeated notes being especially characteristic of patter songs. A melody descending stepwise along the notes of a scale is a basic musical pattern. As shown in the “Prior Art” section below, this musical building block exists in prior art that was widely available before “Wiggle”.

44. This use of a musical building block descending scale with repeated notes only occurs in some portions of the Verse sections in “Wiggle” and “Levitating”. The

¹⁸ See “Patter song” in *Grove* (Volume Nineteen, p. 237) and in *Harvard* (p. 639). See also, e.g., L. L. Siebert, “Kiss Me Kate”, in D. Randel et al., eds., *A Cole Porter Companion* (Champaign: U. of Illinois Press, 2016) (referring to a “rapid-fire, repeated-note patter style . . . reminiscent of Gilbert and Sullivan”); C. Wright & B. Simms, *Music in Western Civilization: Romanticism to the Present* (N.Y.: Schirmer, 2006) (defining “patter-song” as “rapid delivery of text on repeated notes”).

vocal rhythms that are sung in other portions of the Verse sections and throughout the remainder of “Wiggle” and “Levitating” are very different and do not embody any notable rhythmic similarities.

45. Now turning to the instrumental music, there are no notable rhythmic similarities between the drumbeats in “Wiggle” and “Levitating”, but there are very significant differences. This is demonstrated in Musical Example 2 below in which the drumbeat in “Wiggle” is placed over the drum beat in “Levitating”.

MUSICAL EXAMPLE 2
“Wiggle” (Verse) / “Levitating” (Verse)
Drums and Percussion

"Wiggle and a Giggle All Night" 0:24

shaker

electronic claves

electronic congas

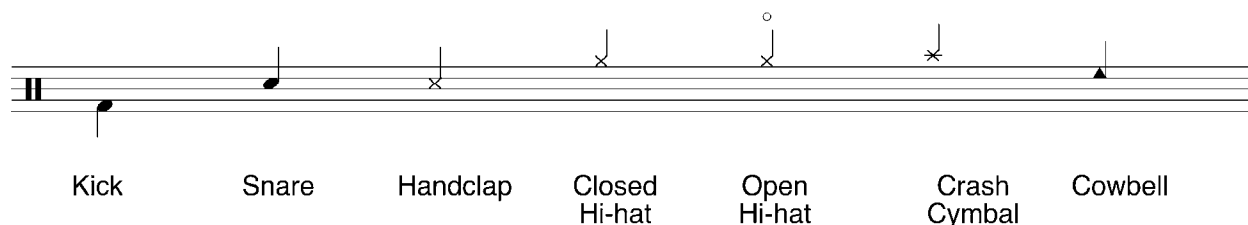
drums

"Levitating" 0:10

drums

46. A “drum legend” for Musical Example 2, identifying the staff positions where notes played by specific instruments are notated, is below.

DRUM LEGEND



47. As shown in Musical Example 2 above, the only rhythmic similarity in the drumbeats and percussion rhythms in “Wiggle” and “Levitating” is four quarter beats per bar on the kick (bass) drum, termed a “four-on-the-floor” rhythm, as seen in the lower portion of the staves. This commonplace and basic rhythm pattern was greatly popularized in disco music of the 1970s, before the release of “Wiggle”. Drum student method books include “four-on-the-floor” kick drum patterns. For instance, in the section on “Disco” in *Funk Drumming* (1982) written by Jim Payne, there are more than two dozen examples of drumbeats with a “four-on-the-floor” kick drum rhythm as shown in **Visual Exhibit D**.¹⁹

48. Also as shown in Musical Example 2 above, there are many differences in the drumbeats and percussion rhythms between “Wiggle” and “Levitating” such as:

- The backbeat (beats 2 and 4) is played on the snare in “Levitating”, but there is no (beats 2 and 4) backbeat in “Wiggle”.
- There are continuous sixteenth notes on the shaker and hi-hat in “Wiggle”, but not in “Levitating”.
- There is a classic 5-note “claves” rhythm²⁰ on electronic claves in “Wiggle”, but this 5-note rhythm is not in “Levitating”.
- There is a recurring six-note pattern (in sixteenth notes) separated by an eighth rest on electronic congas in “Wiggle”, but not in “Levitating”.

¹⁹ Jim Payne, *Funk Drumming* (Mel Bay Publications, pp. 26-33, 1982).

²⁰ See “Claves” in *Harvard* (p. 186).

- There are off-beat notes on the cowbell in “Levitating”, but not in “Wiggle”.

The Drumbeat and Percussion Rhythms in “Wiggle” and “Contestación a La Casa en el Aire” (1958) Are More Similar Than Between “Wiggle” and “Levitating”

49. As analyzed in the section on “Prior Art” below, “Contestación a La Casa en el Aire”, recorded by Trio La Rosa and released in 1958, was followed by at least eight cover releases in the 1970s, seven of which predate “Wiggle” and “Don Diablo”. The Trio La Rosa performance at <https://www.youtube.com/watch?v=OUNa--uvXhQ> is transcribed herein.

50. In Musical Example 3 below, a portion of the drumbeat in the Verse of “Contestación a La Casa en el Aire” is on the top staff, the drumbeat pattern in “Wiggle” is on the middle staff, and the drumbeat pattern in “Levitating” is on the lowest staff.

MUSICAL EXAMPLE 3**Contestación a La Casa en el Aire / Wiggle / Levitating****Drums and Percussion**

The musical score is written in 4/4 time and consists of three systems, each for a different song. Each system contains two staves.

- System 1: "Contestación a la Casa en el Aire" (0:26)**
 - Staff 1: **guiro**. The notation shows a continuous pattern of eighth and sixteenth notes.
 - Staff 2: **congas (slap)**. The notation shows eighth notes with 'x' marks above them, indicating a slap sound.
- System 2: "Wiggle and a Giggle All Night" (0:24)**
 - Staff 1: **shaker**. The notation shows a continuous pattern of eighth and sixteenth notes.
 - Staff 2: **electronic claves**. The notation shows eighth notes with 'z' marks above them, indicating a claves sound.
 - Staff 3: **electronic congas**. The notation shows eighth notes with 'x' marks above them, indicating a conga sound.
 - Staff 4: **drums**. The notation shows eighth notes with 'x' marks above them, indicating a drum sound.
- System 3: "Levitating" (0:10)**
 - Staff 1: **drums**. The notation shows eighth notes with 'x' marks above them, indicating a drum sound.

51. The percussion elements in "Contestación" are Latin in origin. The instruments used are guiro and congas. Congas are also used in "Wiggle" (and "Don Diablo") but not in "Levitating". The guiro in "Contestación" alternates between eighths and sixteenths, which is similar to the sixteenth-note hi-hat and/or shaker patterns in "Wiggle". The eighth-note congas pattern in "Contestación" is more similar to the eighth-note hi-hat in "Levitating" than anything in "Wiggle". There is no kick or bass

drum in "Contestación", so it does not have the musical building block four-on-the-floor pattern present in "Wiggle", "Levitating", and the prior artwork "Stayin' Alive" (1977).

The Drumbeat and Percussion Rhythms in "Wiggle" and "Stayin' Alive" by the Bee Gees (1977) Are More Similar Than Between "Wiggle" and "Levitating"

52. "Stayin' Alive", recorded by the Bee Gees, was released in 1977 as a single from the *Saturday Night Fever* soundtrack. The single was #1 for four consecutive weeks on the *Billboard* "Hot 100" in early 1978, a year before "Wiggle". In addition to a similar descending vocal melody (analyzed in the section on Prior Art below), "Stayin' Alive" includes drumbeat similarities to the songs at issue. In Musical Example 4 below, a portion of the drumbeat in "Stayin' Alive" is on the top staff, the drumbeat pattern in "Wiggle" is on the middle staff, and the drumbeat pattern in "Levitating" is on the lowest staff.

MUSICAL EXAMPLE 4**“Stayin’ Alive” (Chorus) / “Wiggle” (Verse) / “Levitating” (Verse)****Drums and Percussion**

The musical score is divided into three sections, each with its own time signature of 4/4. The first section, "Stayin' Alive" (0:33), features a shaker, triangle, and drums. The second section, "Wiggle and a Giggle All Night" (0:24), features a shaker, electronic claves, electronic congas, and drums. The third section, "Levitating" (0:10), features drums. The drums are represented by 'x' marks on a staff, indicating a consistent "four-on-the-floor" kick drum pattern across all three sections. The percussion instruments are represented by eighth and sixteenth notes on a staff, indicating a consistent rhythmic pattern across all three sections.

"Stayin' Alive" 0:33

- shaker
- triangle
- drums

"Wiggle and a Giggle All Night" 0:24

- shaker
- electronic claves
- electronic congas
- drums

"Levitating" 0:10

- drums

53. As shown in Musical Example 4 above, there is a greater similarity between the drumbeat and percussion rhythms in “Wiggle” and “Stayin’ Alive” than the almost non-existent drumbeat similarity between “Wiggle” and “Levitating”. While the only similarity between the drumbeats in “Wiggle” and “Levitating” is the basic and commonplace “four-on-the-floor” kick drum pattern (a similarity already present in

“Stayin’ Alive” throughout the entire song), “Stayin’ Alive” and “Wiggle” have continuous sixteenth notes on a shaker in both songs, and continuous sixteenth notes are also on the hi-hat in “Wiggle”. Thus, the drumbeats and percussion rhythms are more similar between “Stayin’ Alive” and “Wiggle” than between “Wiggle” and “Levitating”. In addition, while “Stayin’ Alive” and “Levitating” have backbeats on the snare drum, “Wiggle” does not, which is a further difference between “Wiggle” and “Levitating”.

54. The tempo of “Stayin’ Alive”, 103 BPM, is the same as the 103 BPM tempo of “Levitating”. As explained above, the tempo of “Wiggle” is faster at approximately 106 BPM. This is another instance of a similarity between “Stayin’ Alive” and “Levitating”, and a difference between “Wiggle” and “Levitating”.

55. In summary, on the basis of my analysis, I found that there are no significant rhythmic similarities between “Wiggle” and “Levitating”, but there are significant rhythmic differences. When combined with my findings regarding structure and harmony, I found that there are no structural, harmonic, or rhythmic similarities, individually or in the aggregate, that suggest that any musical expression in “Levitating” was copied from “Wiggle”.

II. D. Melody

56. On the basis of my analysis of the melodies in “Wiggle” and “Levitating”, and in the context of the melodies found in prior art as demonstrated below, I found that there are no significant melodic similarities between the works at issue. I found ample musicological support that “Levitating” was independently created because the melodic expression in common between “Wiggle” and “Levitating” was widely available to the writers of both songs before they were released.

The Melodic Similarity at Issue Is a Musical Building Block

57. The only melodic similarity at issue in “Wiggle” and “Levitating” is a musical building block, namely, syllabically (one syllable per note) singing rapid, repeated notes in “patter song” fashion in a descending melody. This sole similarity at issue only occurs in portions of the Verses. The vocal melodies that are sung in other

portions of the Verse sections and throughout the remainder of “Wiggle” and “Levitating” are very different and do not embody similarities.

58. First, as noted above, rapidly sung melodies have been a musical building block for centuries and (by way of example) exist in the public domain in operas by Mozart and Rossini and in operettas by Gilbert and Sullivan. Second, the scale degrees²¹ in the descending melodies in “Wiggle” and “Levitating” are significantly different. Thus, as defined in *The Harvard Dictionary of Music*, the pitches in the melody notes at issue function in significantly different ways. Third, as shown below, descending melodies with repeating notes are commonly found in public domain music exercises and popular songs that predate “Wiggle”.

59. As defined and cited (in the *Harvard* and *Grove* dictionaries of music) above, “melody” is a single line of music that consists primarily of a succession (*i.e.*, a sequence or order) of pitches and the rhythmic durations of those pitches within a melodic phrase structure. Moreover, as demonstrated in the section on “Harmony” above, the chord progressions and harmonic rhythms in “Wiggle” and “Levitating” are significantly different. No harmonic similarity is shared between “Wiggle” and “Levitating”. Therefore, the harmonic context of different modalities (“Wiggle” is in a major key, “Levitating” is in a minor key) and significantly different chord progressions and harmonic rhythms further distances the weak and commonplace melodic similarity at issue.

The Development of the Melodies at Issue Is Significantly Different in “Wiggle” and “Levitating”

60. As shown in the comparative transcriptions in **Visual Exhibit C** and transcribed and explained below, the development of the melodies at issue in “Wiggle” and “Levitating” is very different.

²¹ As mentioned in the Introduction of this report, scale degrees, numbered 1-7, are “[t]he numbered positions of individual pitches within a major or minor scale...each pitch of a scale functions in a particular way with respect to the others....” (See “Scale degree” in *Harvard*, p. 758.)

61. In “Levitating”, the vocal melody at issue is in bars 1 and 2 of the 8-bar Verse. This 2-bar melody at issue in “Levitating” is almost identically repeated in bars 3-4 (the second phrase) of the Verse in “Levitating”. (An upbeat to bar 3 is added and one note is omitted in bar 4 as compared with bar 2.) The melody in bars 5 and 6 (the third phrase) is different from the 2-bar melody at issue in “Levitating”. Finally, the melody at issue in bars 1-2 in “Levitating” is identically repeated in bars 7-8 (the fourth phrase) of the Verse. Thus, bars 1-2, 3-4, and 7-8 are almost (or in the case of bars 1-2 as compared to bars 7-8, actually) identical within “Levitating”.

62. Now turning to “Wiggle”, the vocal melody at issue is in bars 1 and 2 of the Verse, although the Verse in “Wiggle” is 10 bars in length, not 8 bars in length as in “Levitating”. The descending melody in bars 3-4 (the second phrase in the Verse) of “Wiggle” (1) **starts one note lower** than the melody in bars 1 and 2, (2) removes a syncopated note, (3) changes intervals between notes, and (4) changes the melodic contour in portions of the 2-bar melody resulting in **almost completely different scale degrees and pitches** in bars 3-4 of the melody (the second phrase) as compared with bars 1 and 2 (the first phrase). By way of additional difference to the melody at issue in bars 1-2 within “Wiggle”, the third melodic phrase in bar 5 is confined to the pickup and melody in only one bar (not two bars). By further way of difference to the melody at issue in bars 1-2 within “Wiggle”, the pickup to the melody that is in bars 7-8 (the fourth melodic phrase) consists of eleven (11) notes, not two notes as in the pickup to the melody in bar 1. The melody in bars 9-10 of “Wiggle” is also different from the melody at issue in bars 1-2, and the melody in bars 9-10 can be considered an extension of the fourth melodic phrase making it 4 bars in length, i.e., bars 7-10.

63. Thus, as shown in the comparative transcriptions in **Visual Exhibit C** and explained above, **the development of the 2-bar melody at issue in the Verse of “Wiggle” is significantly different from the development of the 2-bar melody at issue in the Verse of “Levitating”**. After an initial iteration in bars 1-2, the melodies at issue develop in very different ways in “Wiggle” as compared to “Levitating”. Moreover, while there are three iterations of the 2-bar melody at issue in the Verses of “Levitating”

(with changes as noted), there are only two iterations of the 2-bar melody at issue in the Verses of “Wiggle” (with changes as noted).

Any Melodic Similarity in “Wiggle” and “Levitating” Is Insignificant and Is a Musical Building Block

64. In analyzing the melodies at issue within the vocal melodies in the Verses of “Wiggle” and “Levitating”, the following analysis focuses on the melodic phrases in bars 1-2 and 3-4 of the Verses. As explained above and shown in **Visual Exhibit C**, the vocal melodies in bars 5-10 of the Verses in “Wiggle” are not at issue.²²

65. Musicologists use scale degrees in the analysis of melodies. There are seven numbered scale degrees in a major or minor scale.²³ Each scale degree has a melodic function. ***When comparing two melodies that are respectively in major and minor keys in parallel keys such as C major and C minor, the melodic function of corresponding scale degrees is maintained.***²⁴

²² Within “Levitating”, insofar as the melody in bars 1-2 is repeated in bars 7-8, the findings regarding the melody in bars 1-2 of “Levitating” also obtain with respect to the melody in bars 7-8 of “Levitating”.

²³ In the key of C major, scale degree 1 is the pitch “C”, scale degree 2 is the pitch “D”, scale degree 3 is the pitch “E”, scale degree 4 is the pitch “F”, scale degree 5 is the pitch “G”, scale degree 6 is the pitch “A”, and scale degree 7 is the pitch “B”. In contrast, in the key of C minor, using the “natural minor” scale, scale degree 1 is the pitch “C”, scale degree 2 is the pitch “D”, scale degree 3 is the pitch “**E-flat (Eb)**”, scale degree 4 is the pitch “F”, scale degree 5 is the pitch “G”, scale degree 6 is the pitch “**A-flat (Ab)**”, and scale degree 7 is the pitch “**B-flat (Bb)**”. In *Harvard*, see “Scale” (p. 757), “Scale degrees” (p. 758), and “Key” (p. 442).

²⁴ As noted above, an alternative way of comparing two melodies that are respectively in major and minor keys (i.e., in different “modes”) is in relative keys. In the songs at issue, a relative key comparison would be C major and A minor. Thereby, the key signature remains the same (there are no sharps or flats) but corresponding pitches (e.g., the pitch “A”) will have different scale degrees and melodic functions. For example, when comparing one melody in the key of C major with another melody in the relative key of A minor, the pitch “A” is scale degree **6** in C major, but the pitch “A” is scale degree **1** in A minor. Thereby, this seemingly same pitch “A” has a different melodic function in C major as compared with the relative key of A minor.

The Scale Degrees in the Melodies at Issue in “Wiggle” and “Levitating” Are Significantly Different and the Melodic Similarity Is Commonplace

66. Musical Example 5(a) below presents a comparison of bars 1-4 of the Verse melody in “Wiggle” and bars 1-4 of the Verse melody in “Levitating” in the parallel keys of C major and C minor, respectively. As noted above, these bars contain the initial two melodic phrases in the respective Verses of each work. Bars 1-4 of “Wiggle” are on the top staff and bars 1-4 of “Levitating” are on the bottom staff. Scale degrees have been input above each note. While the descending scale melody in “Levitating” is stepwise (with notes moving to adjacent notes by “step”)²⁵, by way of difference, within bar 3 of “Wiggle” there is a “leap” from scale degree 7 to scale degree 2 (leaping over scale degree 1) and another leap from scale degree 2 to scale degree 6 (leaping over scale degrees 1 and 7). In addition, the melodies end very differently in bar 4 with an ascent on scale degrees 5-6-7 followed by a descent through scale degrees 6-5 in “Wiggle”, but with a 1-7-1 melodic ending in “Levitating”. Moreover, while scale degree 7 is the pitch “B” in “Wiggle” (“Wiggle” is in a major key), scale degree 7 is the pitch “B-flat” (“Bb”) in “Levitating” (which is in a minor key).²⁶ As shown in Musical Example 5(a) below, there are a total of 46 notes in the “Levitating” melody, and only two out of that total of 46 notes in “Levitating” share the same scale degree with corresponding notes in “Wiggle”, namely scale degree 7 in bars 2 and 4. However, scale degree 7 in “Wiggle” (which is in a major key) is the pitch “B” but scale degree 7 in “Levitating” (which is in a minor key) is the pitch “B-flat” (“Bb”). To show this similarity in scale degrees, the corresponding note heads under scale degree 7 in bars 2 and 4 in Musical Example 5(a) are highlighted in **purple**.

²⁵ There is an upbeat to bar 3 and the second melodic phrase in “Levitating” that is a leap of a perfect 5th from C to G which precedes the descending scale in bar 3.

²⁶ The two pickup notes at the end of bar 4 in “Wiggle” are omitted because they are part of the third melodic phrase which is not at issue. By way of difference, there are no pickup notes to the third melodic phrase in “Levitating”. (See bars 4 and 5 in “Wiggle” and “Levitating” in **Visual Exhibit C.**)

MUSICAL EXAMPLE 5(a)
“Wiggle” / “Levitating” – Verse 1, bars 1-4 (in parallel keys)

The musical notation displays two staves. The top staff is for "Wiggle and a Giggle All Night" (0:24) in C major, and the bottom staff is for "Levitating" (0:10) in A minor. Both are in 4/4 time. Scale degrees are written above the notes. In the first system (bars 1-4), the scale degrees for "Wiggle" are 5 5 3 3 3 3 2 3 2 1 1 1 7 7 7 6 6 6 6 6 6 7 6 5 5 5. For "Levitating", they are 5 5 5 5 4 4 4 4 3 3 3 3 2 2 2 2 1 1 1 1 1 7 1 1. In the second system (bars 5-8), the scale degrees for "Wiggle" are 3 2 2 2 2 1 1 1 1 7 7 7 2 6 6 6 5 5 5 5 5 6 7 6 5. For "Levitating", they are 5 5 5 5 4 4 4 4 3 3 3 3 2 2 2 2 1 1 1 1 7 1. Purple highlights are placed on the scale degree 7 notes in bars 2 and 4 of both songs.

67. Musical Example 5(b) below presents the same comparison in the relative keys of C major and A minor, respectively. As shown in Musical Example 5(b) below, only two out of a total of 46 notes in “Levitating” share the same scale degree with corresponding notes in “Wiggle”, namely scale degree 7 in bars 2 and 4. However, scale degree 7 in “Wiggle” (in the key of C major) is the pitch “B” but scale degree 7 in “Levitating” (which is in the key of A minor) is the pitch “G”. To show this similarity in scale degrees, the corresponding note heads under scale degree 7 in bars 2 and 4 in Musical Example 5(b) are highlighted in **purple**.

MUSICAL EXAMPLE 5(b)
“Wiggle” / “Levitating” – Verse 1, bars 1-4 (in relative keys)

"Wiggle and a Giggle All Night" 0:24

"Levitating" 0:10

68. As can be seen, when transposed in relative keys, after the middle of the second bar, there is no similarity of either pitch **or** scale degree apart from a single note in bar 4 (at different pitches but scale degree 7). Moreover, even in bar 1 and the first half of bar 2 there are differences of melodic contour and rhythm despite the simple descending pattern.

69. The significantly different scale degrees and pitches in the corresponding “Wiggle” and “Levitating” Verse melodies transcribed in Musical Example 5(a) above are charted as scale degrees immediately below. The “upbeat” (also termed “pickup”) notes before a bar are in italics. Corresponding scale degrees that are the same yet different in pitch (“B” as compared with “Bb”) are highlighted in **purple**.

	<u>Bar 1</u>	<u>Bar 2</u>
"Wiggle":	5 5 3 3 3 3 2 3 2 1 1 1 7 7 7	6 6 6 6 6 6 7 6
"Levitating":	5 5 5 5 4 4 4 4 3 3 3 3 2 2 2 2	1 1 1 1 1 7 1
	<u>Bar 3</u>	<u>Bar 4</u>
"Wiggle":	5 5 5 2 2 2 2 1 1 1 1 7 7 7 2 6 6 6	5 5 5 5 5 6 7 6 5
"Levitating":	1 5 5 5 5 4 4 4 4 3 3 3 3 2 2 2 2	1 1 1 1 7 1

70. As shown in Musical Examples 5(a) and 5(b) and the charts regarding Musical Example 5(a) immediately above, the melodic similarity is merely a stepwise descending melody in which notes are iterated four times on each scale degree. (For example, in the key of A minor, the pattern **5 5 5 5 - 4 4 4 4 - 3 3 3 3 - 2 2 2 2 1 1 1 1** is simply **E E E E - D D D D - C C C C - B B B B - A A A A**, or five descending white keys on a piano, each repeated four times.) This commonplace descending pattern is unbroken in bars 1 and 3 of "Levitating" but, by way of difference, in "Wiggle" this pattern of continuous sixteenth notes is interrupted in every bar of "Wiggle". As demonstrated later in this report, the melodic similarity is merely a musical building block that was commonplace prior to "Wiggle", including in public domain works.

71. In Musical Example 6(a) below, the notes and scale degrees from Musical Example 5(a) are used. However, in Musical Example 6, the notes that are different in "Levitating" as compared to corresponding notes in "Wiggle" are **X**d out.

MUSICAL EXAMPLE 6(a)
“Wiggle” / “Levitating” – Verse 1, bars 1-4 (Parallel keys)

The musical notation shows two staves. The top staff, labeled "Wiggle and a Giggle All Night" 0:24, is in C major (one sharp). The bottom staff, labeled "Levitating" 0:10, is in B-flat major (two flats). Both are in 4/4 time. Fingerings are indicated by numbers 1-5 above notes. In the "Levitating" staff, 45 notes are marked with red X's, indicating they differ from the "Wiggle" staff in pitch, scale degree, rhythmic duration, or metric placement. The only note not marked with a red X is a purple note (scale degree 7) in bar 4, which corresponds to B in "Wiggle" and B-flat in "Levitating".

72. As shown in Musical Example 6(a) above, out of a total of 46 notes in bars 1-4 of Verse 1 of “Levitating”, 45 notes (approximately 98%) are **X**d out because they are not the same in pitch, scale degree, rhythmic duration, and metric placement with corresponding notes in “Wiggle”. The only corresponding note that is not **X**d out in “Levitating” is under scale degree “7”. The corresponding scale degree “7” is highlighted in **purple** because while the scale degree 7 is the same scale degree, the pitch is different: scale degree 7 is the pitch B in “Wiggle”, but scale degree 7 is the pitch B-flat (Bb) in “Levitating”.

73. Musical Example 6(b) below performs the same exercise in *relative* keys, based on the notes in Musical Example 5(b) above.

MUSICAL EXAMPLE 6(b)
“Wiggle” / “Levitating” – Verse 1, bars 1-4 (Relative keys)

74. Here, 16 out of 46 notes in “Levitating” are the same in pitch (but different in scale degree), rhythmic duration, and metric placement as corresponding notes in “Wiggle”. Thus, even when disregarding the different scale degrees (which are almost completely different) between “Wiggle” and “Levitating”, (1) 65% of the corresponding notes are still filtered out from “Levitating” and (2) the remaining notes are fragmentary and insignificant: the notes that are not **X**d out in Musical Example 6(b) are in groups of 4 or 5 notes, 15 of which are sixteenth notes that are on scale-wise descending pitches or that merely repeat the same pitch. Notably, this inconsequential similarity is found in prior art works that predate “Wiggle”, including works in the public domain. (For examples, see Section II. F. Prior Art below.)

75. Importantly, under **both** means of comparison, the similarity between the vocal melodies is nothing more than the use of a musical building block that was commonplace before “Wiggle”, and in which notes in a stepwise descending melody are repeated.

76. In summary, on the basis of my analysis, I found that there are no significant melodic similarities between “Wiggle” and “Levitating”, but there are

significant melodic differences, including in the portion of the songs at issue. While there is a melodic similarity between “Wiggle” and “Levitating”, that melodic similarity is a musical building block that exists in prior art that was widely available before “Wiggle”, as shown in the “Prior Art” section of this report. When combined with my findings regarding structure, harmony, and rhythm, I found that there are no structural, harmonic, rhythmic, or melodic similarities, individually or in the aggregate, that suggest that any musical expression in “Levitating” was copied from “Wiggle”.

II. E. Lyrics

The Lyrics in “Wiggle” and “Levitating” Are Significantly Different

77. On the basis of my analysis, I found that the lyrics in “Wiggle” and “Levitating” are significantly different and that there are no significant lyrical similarities. The only lyrical similarity is the patter-style “performance” of different lyrics in a portion of the Verses in “Wiggle” and “Levitating”.

78. In summary, I found that there are no significant lyrical similarities, but there are significant lyrical differences. Moreover, when combined with my findings regarding structure, harmony, rhythm, and melody, I found that there are no significant structural, harmonic, rhythmic, melodic, or lyrical similarities, individually or in the aggregate, that suggest that any musical or lyrical expression in “Levitating” was copied from “Wiggle”.

II. F. Prior Art

Prior Art Significantly Undermines and Debilitates Plaintiffs’ Claims

79. On the basis of my musicological research and analysis, I found that prior art significantly undermines and debilitates Plaintiffs’ claims. Of particular interest is the compelling evidence that the musical elements shared by “Wiggle” and “Levitating” represent a musical building block found in musical compositions that are in the public domain and in popular music songs that predate “Wiggle”. This musicological evidence establishes that the musical sources of any melodic similarity at issue are present in many compositions from the nineteenth and twentieth centuries that predate “Wiggle”.

Together with the many works that continue to use this basic musical building block these prior compositions provide very strong musicological support for finding that Plaintiffs cannot monopolize the musical expression that is at issue in “Wiggle” and “Levitating”, and that “Levitating” was created independently. The bottom line is that the expression at issue has been widely used and available for centuries.

The Musical Elements at Issue Are Found In Latin American Music Before “Wiggle”

(1) Contestación a La Casa en el Aire

80. The musical elements at issue are found in the popular Latin American song, “Contestación a La Casa en el Aire”, originally released in 1958 with at least eight cover releases in the 1970s, seven of which predate “Wiggle” and “Don Diablo” as identified below.

- a. Trio La Rosa, “Contestación a la casa en el aire” (1958, Cuba). See <https://www.youtube.com/watch?v=OUNa--uvXhQ>
- b. Don Medardo y sus players, “La casa en el aire” (1975, Ecuador). See <https://www.youtube.com/watch?v=XJQQm01nhG0&t=11s>; see also <https://www.discogs.com/release/12078595-Don-Medardo-Y-Sus-Players-La-Musica-Brava-Vol-11>.
- c. Los Graduados, “Contestación a la Casa en el Aire” (1975, Colombia). See <https://music.apple.com/us/album/nos-sobramos/1713352584>.
- d. Renacimiento '74, “Casa en el aire” (1976, U.S.). See <https://www.youtube.com/watch?v=MELIHoygC5s&t=1709s>.
- e. Orquesta Internacional Picante, “Corazón Sincero (Casa en el aire)” (circa 1976, Guatemala). See <https://www.youtube.com/watch?v=GHgko-2Jb3U&t=11s>.
- f. Costa Chica, “Contestación a Casa en el Aire” (1977, Mexico/U.S.). See <https://www.youtube.com/watch?v=ORGKIYXa2zg&t=11s>.

- g. Cuatitos Cantú, “Contestación A: Casa En El Aire” (1977, U.S.). See <https://www.youtube.com/watch?v=3cJ1USNZIT4>; see also <https://frontera.library.ucla.edu/recordings/contestacion-casa-en-el-aire-0>.
- h. Sonidio Cotopaxi, “Contestación a la casa en el aire” (1978, Uruguay). See <https://www.youtube.com/watch?v=D3SoZBFSZXw&t=17s>.
- i. Los Hermanos Aguirre De Durango, “Casa en el aire” (1979, U.S.). See <https://frontera.library.ucla.edu/recordings/una-casa-en-el-aire-0>.
- j. Fidel Funes y su Orquesta, Casa en el aire (1980, Guatemala). See <https://www.youtube.com/watch?v=sCILNggFrpg&t=13s>.

81. A transcription of the vocal melody at issue in “Contestación a La Casa en el Aire” (hereafter “Contestación”) is presented in Musical Example 7 below, transposed to the key of C major from the recorded key of Ab major.

MUSICAL EXAMPLE 7

“Contestación” Verse 1 at 0:26



82. As shown in the comparative transcriptions in **Visual Exhibit C** and transcribed and explained below, the development of the melodies at issue in “Wiggle” and “Levitating” is very different. As shown in Musical Example 7 above, in

“Contestación”, the vocal melody at issue appears in bars 1 and 2 of the 9-bar Verse, based on repeated sixteenth notes descending scale-wise. A similar 2-bar melody is in bars 3-4 that starts one step lower than the opening melodic phrase in the Verse. The third melodic phrase (bars 5-6) is very similar to the opening melody at issue. Each of the remaining bars 7-9 consists of a 1-bar melody largely consisting of sixteenth notes some of which also descend in stepwise motion.

83. By way of notable similarity to the melodic development in “Wiggle”, the second descending melodic phrase in “Contestación” starts down one step as compared with the opening descending melodic phrase in the Verse.

84. Comparing the melody in “Contestación” to the melodies at issue in “Wiggle” and “Levitating”, as shown in Musical Example 8 below, there are many more identical corresponding notes between the melody in “Contestación” and the melody at issue in “Levitating” than there are between the melodies at issue in “Wiggle” and “Levitating”. In Musical Example 8 below, “Wiggle” is on the top staff, “Contestación” is on the middle staff, and “Levitating” is on the bottom staff. (They are shown transposed in parallel keys, C major and C minor.)

MUSICAL EXAMPLE 8

“Wiggle” / “Contestación” / “Levitating”

Three musical staves are shown, each with scale degrees written above the notes. The first staff is for "Wiggle and a Giggle All Night" (0:24), the second for "Contestación A La Casa En El Aire" (0:26), and the third for "Levitating" (0:10). The staves are in 4/4 time. The first two staves are in G major, and the third is in E-flat major. The scale degrees for the first two measures of each piece are as follows:

Measure	"Wiggle and a Giggle All Night"	"Contestación A La Casa En El Aire"	"Levitating"
1	5 5 3 3 3 3 2 3 2 1	5 1 3 5 5 5 5 4 4 4 4 3 3 3 3 2 2 2 2	5 5 5 5 4 4 4 4 3 3 3 3 2 2 2 2
2	1 1 1 7 7 7 6 6 6 6 6 6 7 6 5 5 5	1 1 1 1 2 1 7 1 2 7 7 2	1 1 1 1 1 7 1 1

85. Musical Example 9 below uses the same notes as in Musical Example 8 but highlights (in **red**) the corresponding notes in “Contestación” and “Levitating” with identical scale degree, pitch, metric placement, and rhythmic duration. Notes that are *identical* in scale degree, pitch, and metric placement but different in rhythmic duration are highlighted in **purple**. Scale degree 3 in “Contestación” is the pitch E while scale degree 3 in “Levitating” is E-flat. The corresponding scale degree 3 notes that are *identical* in rhythmic duration, metric placement, and scale degree but different in pitch, are also highlighted in **purple**.

MUSICAL EXAMPLE 9

“Wiggle” / “Contestación” / “Levitating”

"Wiggle and a Giggle All Night" 0:24

"Contestación A La Casa En El Aire" 0:26

"Levitating" 0:10

3 2 2 2 2 1 1 1 1 7 7 7 2 6 6 6 5 5 5 5 5 6 7 6 5

4 4 4 4 3 3 3 3 2 2 2 2 1 1 1 1 7 7 7 6 6 1 7 6 5 6 1 3

5 5 5 5 4 4 4 4 3 3 3 3 2 2 2 2 1 1 1 1 7 1

86. As shown in Musical Example 9 above, 20 out of a total of 46 notes (approximately 43% of the notes) in “Levitating” are *identical* in scale degree, metric placement, and rhythmic duration to “Contestación”. Even without the 4 notes on scale degree 3 highlighted in **purple**, 16 out of a total of 46 notes (approximately 34% of the notes) in “Levitating” are *identical* in pitch, metric placement, and rhythmic duration to “Contestación”.

87. Additionally, Musical Example 9 shows the similarity noted between “Wiggle” and “Contestación”: the descending melody in bar 3 starts **a step lower** (on

scale degree 2 in “Wiggle” and on scale degree 4 in “Contestación”) and continues the descending melodic pattern. Starting and continuing a step lower in the second melodic phrase in bar 3 as compared with the first melodic phrase in bar 1 in “Wiggle” is a similarity between “Contestación” and “Wiggle”, but a difference between “Levitating” and “Wiggle”.

88. Musical Example 10 below uses the same notes as in Musical Example 9. The purpose of Musical Example 10 is to filter out (with **Xs**) the notes in “Levitating” that (1) are not the same as in “Wiggle” and/or (2) are also in the prior artwork “Contestación”. As shown therein, none of the 46 notes in “Levitating” remain after this filtration process.

MUSICAL EXAMPLE 10

“Contestación” / “Wiggle” / “Levitating”

"Wiggle and a Giggle All Night" 0:24

"Contestación A La Casa En El Aire" 0:26

"Levitating" 0:10

3 2 2 2 2 1 1 1 1 7 7 7 2 6 6 6 5 5 5 5 5 6 7 6 5

4 4 4 4 3 3 3 3 2 2 2 2 1 1 1 1 7 7 7 6 6 1 7 6 5 6 1 3

5 5 5 5 4 4 4 4 3 3 3 3 2 2 2 2 1 1 1 1 7 1

89. As shown in the alternate version of Musical Example 8 in **Visual Exhibit B**, even when compared in “relative” keys, not one of the 46 notes in “Levitating” is the same in scale degree, rhythmic duration, and metric placement as compared with “Wiggle”.

90. As shown in the alternate version of Musical Example 10 in **Visual Exhibit B**, in relative keys, after filtering out notes in “Levitating” that (1) are different from notes in “Wiggle” and/or (2) are in “Contestación”, 16 out of 46 notes in “Levitating” remain because they are the same in pitch, rhythmic duration, and metric placement (but different in scale degree) as corresponding notes in “Wiggle”. Thus, even when disregarding the different scale degrees (which are almost completely different) between “Wiggle” and “Levitating”, (1) 65% of the corresponding notes are filtered out from “Levitating” and (2) the notes that are not filtered out are fragmentary and insignificant: they are in groups of 4 or 5 notes which are all sixteenth notes that are on adjacent pitches or that repeat the same pitch which is a fragment of a musical building block.

91. Thus, whether compared in “parallel” keys as above or in “relative” keys as in **Visual Exhibit B**, the Verse melody in “Contestación” undermines a claim that the musical building block melodic element that is shared by “Wiggle” and “Levitating” can be monopolized by Plaintiffs.

92. In summary, “Contestación” – recorded and released by many artists before “Wiggle” – shares more identical notes with the melody at issue in “Levitating” than there are between the melodies at issue in “Wiggle” and “Levitating” in parallel keys. “Contestación” also shares a similarity with “Wiggle”, namely, beginning the melody in bar 3 a step lower than in bar 1. Consequently, “Contestación” significantly undermines and debilitates Plaintiffs’ claims. The similarity at issue is rapidly repeating notes in a descending scale, which is a musical building block that no composer can monopolize. Its wide use before “Wiggle” in “Contestación” defeats any claim that “Wiggle” was “copied”, and strongly supports that “Levitating” was independently created.

(2) “El Cafetal – El Caimán”

93. “El Cafetal – El Caimán” (hereafter “El Cafetal”) is an instrumental Latin American work recorded by Juan Vincente Torrealba and released in 1975. Although “El Cafetal” appeared on an album subtitled *Colombia*, Torrealba was born and lived in Venezuela. See e.g. https://en.wikipedia.org/wiki/Juan_Vicente_Torrealba; https://sincopa.com/traditional/artists2/juan_vicente_torrealba.htm.

94. Comparing the melody in “El Cafetal” to the melodies at issue in “Wiggle” and “Levitating” in parallel keys, as shown in Musical Example 11 below, there are many more identical corresponding notes between the melody in “El Cafetal” and the melody at issue in “Levitating” than there are between the melodies at issue in “Wiggle” and “Levitating”.

95. In Musical Example 11 below, “Wiggle” is on the top staff, “El Cafetal” is on the middle staff, and “Levitating” is on the bottom staff, shown in parallel keys.

MUSICAL EXAMPLE 11

“Wiggle” / “El Cafetal” / “Levitating”

"Wiggle and a Giggle All Night" 0:24

"El Cafetal - El Caimán" 0:01

"Levitating" 0:10

96. Musical Example 12 below uses the same notes as in Musical Example 11 but highlights (in **red**) the corresponding notes in “El Cafetal” and “Levitating” with identical scale degree, pitch, metric placement, and rhythmic duration. Notes that are *identical* in scale degree, pitch, and metric placement but different in rhythmic duration are highlighted in **purple**. Scale degree 3 in “El Cafetal” is the pitch E while scale degree 3 in “Levitating” is E-flat. The corresponding scale degree 3 notes that are *identical* in rhythmic duration, metric placement, and scale degree but different in pitch, are also highlighted in **purple**.

MUSICAL EXAMPLE 12

“Wiggle” / “El Cafetal” / “Levitating”

"Wiggle and a Giggle All Night" 0:24

"El Cafetal - El Caimán" 0:01

"Levitating" 0:10

3 2 2 2 2 1 1 1 1 7 7 7 2 6 6 6 5 5 5 5 5 6 7 6 5

4 4 4 4 3 3 3 3 2 2 2 2 1 1 1 1 7 7 7 5 7 5 4 3 5 1 3

5 5 5 5 4 4 4 4 3 3 3 3 2 2 2 2 1 1 1 1 7 1

97. As shown in Musical Example 12 above, 19 out of a total of 46 notes (approximately 41% of the notes) in “Levitating” are *identical* in scale degree, metric placement, and rhythmic duration to “El Cafetal”. Even without the 4 notes on scale degree 3 highlighted in **purple**, 15 out of a total of 46 notes (approximately 3% of the notes) in “Levitating” are *identical* in pitch, metric placement, and rhythmic duration to “El Cafetal”.

98. Additionally, there is a similarity between “Wiggle” and “El Cafetal”: bar 3 starts **a step lower** (repeating on scale degree 2 in “Wiggle” and on scale degree 4 in “El Cafetal”), continuing the descending melodic pattern. Starting and continuing a step lower in the second melodic phrase in bar 3 as compared with the first melodic phrase in bar 1 in “Wiggle” is a difference between “Levitating” and “Wiggle” but is an identity between “El Cafetal” and “Wiggle”.

99. Musical Example 13 below uses the same notes as in Musical Examples 11 and 12. The purpose of Musical Example 13 is to filter out (with **Xs**) the notes in “Levitating” that (1) are not the same as in “Wiggle” and/or (2) are also in the prior artwork “El Cafetal”. As shown therein, none of the 46 notes in “Levitating” remain after this filtration process.

MUSICAL EXAMPLE 13**“Wiggle” / “El Cafetal” / “Levitating”**

The image displays three musical staves, each representing a different song. Each staff includes a title, a time stamp, and a melody line with scale degrees written above the notes. The first staff is for "Wiggle and a Giggle All Night" (0:24) in 4/4 time, starting on a treble clef with a key signature of one sharp (F#). The second staff is for "El Cafetal - El Caimán" (0:01) in 4/4 time, also on a treble clef with a key signature of one sharp. The third staff is for "Levitating" (0:10) in 4/4 time, on a treble clef with a key signature of two flats (Bb, Eb). The melody for "Levitating" is marked with red X's, indicating specific notes of interest. The scale degrees for each staff are as follows:

- "Wiggle and a Giggle All Night":** 5 5 3 3 3 3 2 3 2 1 1 1 7 7 7 6 6 6 6 6 6 7 6 5 5 5
- "El Cafetal - El Caimán":** 5 1 3 5 5 5 5 4 4 4 4 3 3 3 3 2 2 2 2 1 1 1 7 2 7 5 4 5 7 2
- "Levitating":** 5 5 5 5 4 4 4 4 3 3 3 3 2 2 2 2 1 1 1 1 1 7 1 1

100. In summary, “El Cafetal” shares more identical notes in scale degrees, pitches, metric placement, and rhythmic durations with the melody at issue in “Levitating” than there are between the melodies at issue in “Wiggle” and “Levitating” in parallel keys. “El Cafetal” also shares a similarity with “Wiggle”, namely beginning the melody in bar 3 a step lower than in bar 1. Consequently, “El Cafetal” further undermines and debilitates Plaintiffs’ claims. The similarity at issue is repeating notes in a descending scale which is a musical building block that no composer can monopolize. The use of this musical building block in “Levitating” does not remotely suggest that such use was copied from “Wiggle”.

101. Now analyzing “El Cafetal”, “Wiggle”, and “Levitating” in relative keys, as shown in Musical Example 14 below, even when compared in “relative” keys, not one note out of 46 notes in “Levitating” is the same in scale degree, rhythmic duration, and metric placement as compared with “Wiggle”.

MUSICAL EXAMPLE 14

“Wiggle” / “El Cafetal” / “Levitating” (in relative keys)

"Wiggle and a Giggle All Night" 0:24

"El Cafetal - El Caimán" 0:01

"Levitating" 0:10

5 5 3 3 3 3 2 3 2 1 1 1 1 7 7 7 6 6 6 6 6 6 7 6 5 5 5

5 1 3 5 5 5 5 4 4 4 4 3 3 3 3 2 2 2 2 1 1 1 7 2 7 5 4 5 7 2

5 5 5 5 4 4 4 4 3 3 3 3 2 2 2 2 1 1 1 1 1 7 1 1

3 2 2 2 2 1 1 1 1 7 7 7 2 6 6 6 5 5 5 5 5 6 7 6 5

4 4 4 4 3 3 3 3 2 2 2 2 1 1 1 1 7 7 7 5 7 5 4 3 5 1 3

5 5 5 5 4 4 4 4 3 3 3 3 2 2 2 2 1 1 1 1 7 1

102. Furthermore, as shown in relative keys in Musical Example 15 below, after filtering out notes in “Levitating” that (1) are different from notes in “Wiggle” and/or (2) are in “El Cafetal”, 16 out of 46 notes in “Levitating” remain because they are the same in pitch, rhythmic duration, and metric placement (but different in scale degree) as corresponding notes in “Wiggle”. Thus, even when disregarding the different scale

degrees (which are almost completely different) between “Wiggle” and “Levitating”, (1) 65% of the corresponding notes are filtered out from “Levitating” and (2) the notes that are not filtered out are fragmentary and insignificant: they are in groups of 4 or 5 notes which are all sixteenth notes that are on adjacent pitches or that repeat the same pitch which is a fragment of a musical building block.

MUSICAL EXAMPLE 15

“Wiggle” / “El Cafetal” / “Levitating” * (in relative keys)

The image displays musical notation for three songs in 4/4 time, comparing their melodic lines. Fingerings are indicated by numbers 1-7 above the notes.

First System:

- "Wiggle and a Giggle All Night" (0:24):** 5 5 3 3 3 3 2 3 2 1 1 1 1 7 7 7 6 6 6 6 6 6 7 6 5 5 5
- "El Cafetal - El Caimán" (0:01):** 5 1 3 5 5 5 5 4 4 4 4 3 3 3 3 2 2 2 2 1 1 1 7 2 7 5 4 5 7 2
- "Levitating" (0:10):** 5 5 5 5 4 4 4 4 3 3 3 3 2 2 2 2 1 1 1 1 1 7 1 1

Second System:

- "Wiggle and a Giggle All Night" (0:24):** 3 2 2 2 2 1 1 1 1 7 7 7 2 6 6 6 5 5 5 5 5 6 7 6 5
- "El Cafetal - El Caimán" (0:01):** 4 4 4 4 3 3 3 3 2 2 2 2 1 1 1 1 7 7 7 5 7 5 4 3 5 1 3
- "Levitating" (0:10):** 5 5 5 5 4 4 4 4 3 3 3 3 2 2 2 2 1 1 1 1 7 1

Red 'X' marks are placed over several notes in the "Levitating" track, indicating they were filtered out for comparison. These include notes at measures 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25, 26, 27, 28, 29, 30, 31, 32, 33, 34, 35, 36, 37, 38, 39, 40, 41, 42, 43, 44, 45, 46, 47, 48, 49, 50, 51, 52, 53, 54, 55, 56, 57, 58, 59, 60, 61, 62, 63, 64, 65, 66, 67, 68, 69, 70, 71, 72, 73, 74, 75, 76, 77, 78, 79, 80, 81, 82, 83, 84, 85, 86, 87, 88, 89, 90, 91, 92, 93, 94, 95, 96, 97, 98, 99, 100.

103. In summary, when added to “Contestación”, “El Cafetal” establishes that the similarities claimed between “Wiggle” and “Levitating” were already embodied in Latin American works that predate “Wiggle”. These two prior art works, respectively first released in 1958 and 1975, significantly undermine and debilitate Plaintiffs’ claims by

establishing that Plaintiffs cannot monopolize the basic musical building block at issue, and that any appearance of it in “Levitating” does not remotely suggest copying from “Wiggle”.²⁷

Many Other Works of Prior Art Contain the Same Musical Building Block

(3a) School of Fluency, Opus 299, #22, bars 5-8

104. Carl Czerny (1791 - 1857) was a famous composer of many piano studies books such as *School of Velocity*, *School of Virtuosity*, *School of Dexterity* and many more. These books have been widely used by pianists and piano teachers since the nineteenth century. Czerny was a famous pianist and a student of Beethoven. Franz Liszt was a student of Czerny.

105. The first study by Czerny in this report is from his book, *Schule Der Geläufigkeit* (*School of Fluency*), Opus 299. A copy of the book cover and study #22 on pages 52-53 from the book are attached as **Visual Exhibit E**. Most of study #22 consists of rapid sixteenth notes in which each note is iterated four times and moves stepwise to adjacent notes. As shown in Musical Example 16 below, there are more identical notes between bars 5-8 of Czerny’s study and the melody at issue in “Wiggle” than there are between the melodies at issue in “Wiggle” and “Levitating” in parallel keys. In Musical Example 16 below, the Czerny study #22 is on the top staff, “Wiggle” is on the middle staff, and “Levitating” is on the bottom staff.

²⁷ Additional Latin American works from the 1970s reflect the popularity of using rapidly repeated sixteenth notes that descend along a scale, often repeated a whole step lower in the second phrase. Another example is “Puedes Marcharte”, recorded at least three times between 1971 and 1973, including as recorded and released in the U.S. by Los Hermanos Barron as “Hoy Puedes Marcharte”. See <https://www.youtube.com/watch?v=J5W-JSKcXik&t=18s>.

MUSICAL EXAMPLE 16

Czerny, Op. 299, No. 22 bars 5-8 / "Wiggle" / "Levitating"

The musical example consists of three staves, each in 4/4 time. The first staff is for Czerny Op. 299, No. 22 bars 5-8. The second staff is for "Wiggle and a Giggle All Night" 0:24. The third staff is for "Levitating" 0:10. Each staff shows a sequence of notes with scale degrees written above them. The notes are: G4 (3), A4 (3), B4 (3), C5 (2), D5 (2), E5 (2), F5 (1), G5 (1), A5 (1), B5 (7), C6 (7), D6 (7), E6 (6), F6 (6), G6 (6), A6 (5), B6 (5), C7 (4), D7 (4), E7 (4), F7 (3), G7 (3), A7 (3).

106. Musical Example 17 below uses the same notes as in Musical Example 16 but highlights in **red** the corresponding notes with *identical* scale degree, pitch, metric placement, and rhythmic duration. Numbers highlighted in **purple** have the same scale degree, pitch, and metrical placement but not the same rhythmic duration.

MUSICAL EXAMPLE 17

Czerny, Op. 299, No. 22 bars 5-8 / "Wiggle" / "Levitating"

The musical example displays three staves of music in 4/4 time. The first staff is Czerny's study, the second is "Wiggle and a Giggle All Night", and the third is "Levitating". Fingerings are indicated by numbers 1-7 above the notes. Some notes are highlighted in red and purple to show similarities between the pieces.

Czerny, Op. 299, No. 22 bars 5-8:

Fingerings: 3 3 3 3 2 2 2 1 1 1 1 7 7 7 7 6 6 6 6 5 5 5 5 4 4 4 4 3 3 3 3

"Wiggle and a Giggle All Night":

Fingerings: 5 5 3 3 3 3 2 3 2 1 1 1 1 7 7 7 7 6 6 6 6 6 6 7 6 5 5 5

"Levitating":

Fingerings: 5 5 5 5 4 4 4 4 3 3 3 3 2 2 2 2 1 1 1 1 1 7 1 1

Continuation of "Levitating":

Fingerings: 2 2 2 2 5 5 5 5 7 7 7 7 6 6 6 6 5 6 5 4 5 7 2 5 5

Fingerings: 2 2 2 2 1 1 1 1 7 7 7 2 6 6 6 5 5 5 5 5 6 7 6 5

Fingerings: 5 5 5 5 4 4 4 4 3 3 3 3 2 2 2 2 1 1 1 1 7 1

107. As shown in Musical Example 17 above, 23 out of a total of 51 notes (approximately 45%) in "Wiggle" are *identical* in scale degree, pitch, metric placement, and rhythmic duration, and two additional corresponding notes highlighted in **purple** are *identical* in scale degree, pitch, and metric placement but not rhythmic duration as compared to the Czerny study.

108. Musical Example 18 below uses the same notes as in Musical Examples 16 and 17. The purpose of Musical Example 18 is to filter out (with **Xs**) the notes in "Levitating" that (1) are not the same as in "Wiggle" and/or (2) are also in the prior artwork by Czerny. As shown in Musical Example 18 below, only one note out of 46

notes in “Levitating” remains because it is the same in scale degree, rhythmic duration, and metric placement as compared with a single note in “Wiggle”. However, that corresponding note is without an “X”, and highlighted in **purple**, because while the corresponding note is on scale degree “7”, the pitch is different: scale degree 7 is a “B” pitch in “Wiggle” but it is a “Bb” pitch in “Levitating”.

MUSICAL EXAMPLE 18

Czerny, Op. 299, No. 22 bars 5-8 / “Wiggle” / “Levitating”

The musical notation shows three staves for each version. The 'Wiggle' version is in 4/4 time, and the 'Levitating' version is in 4/4 time with a key signature of two flats. The 'Levitating' version has many notes marked with red 'X's, indicating they are filtered out. The notes that remain are highlighted in purple.

109. As shown in the alternate versions of Musical Examples 16 and 18 in **Visual Exhibit B**, even when compared in “relative” keys, only one note out of 46 notes in “Levitating” is the same in pitch, rhythmic duration, and metric placement as compared with “Wiggle”, namely the pitch “A” on beat 3 in bar 2. In addition, only one note remains in “Levitating” after the filtration process.

110. Thus, whether compared in “parallel” keys as above or in “relative” keys as in **Visual Exhibit B**, bars 5-8 of Czerny piano study #22 undermine a claim that the musical building block melodic element that is shared by “Wiggle” and “Levitating” can be monopolized by Plaintiffs.

(3b) School of Fluency, Opus 299, #22, bars 9-12

111. Staying with study #22 in Czerny’s Opus 299 but now comparing bars 9-12 therein to the melodies at issue in “Wiggle” and “Levitating”, as shown in Musical Example 19 below, there are many more identical corresponding notes between the melody in bars 9-12 of Czerny’s study and the melody at issue in “Levitating” than there are between the melodies at issue in “Wiggle” and “Levitating”.

112. In Musical Example 19 below, “Wiggle” is on the top staff, the Czerny study #22 is on the middle staff, and “Levitating” is on the bottom staff.

113. By way of similarity, the melodies in Czerny and “Levitating” are wholly stepwise with the exception of the single-note upbeat to bar 3 in “Levitating” as shown in Musical Example 19. But by way of difference within bar 3 of “Wiggle”, there are two “leaps”: a leap from scale degree 7 up to scale degree 2 (which is a leap over scale degree 1) and a leap from scale degree 2 down to scale degree 6 (which is a leap over scale degrees 1 and 7).

MUSICAL EXAMPLE 19

“Wiggle” / Czerny, Op. 299, No. 22 bars 9-12 / “Levitating”

Three musical excerpts are shown, each with scale degrees written above the notes. The first excerpt, "Wiggle and a Giggle All Night" (0:24), is in 4/4 time and features a melody with scale degrees 5 5 3 3 3 3 2 3 2 1 1 1 1 7 7 7 6 6 6 6 6 6 7 6 5 5 5. The second excerpt, Czerny Op. 299, No. 22 bars 9-12, is in 4/4 time and features a melody with scale degrees 5 5 5 5 4 4 4 4 3 3 3 3 2 2 2 2 1 1 1 1 1 1 1 2 2 2 2 3 3 3 3. The third excerpt, "Levitating" (0:10), is in 4/4 time and features a melody with scale degrees 5 5 5 5 4 4 4 4 3 3 3 3 2 2 2 2 1 1 1 1 1 7 1 1. The fourth excerpt, starting at measure 3, is in 4/4 time and features a melody with scale degrees 2 2 2 2 1 1 1 1 7 7 7 2 6 6 6 5 5 5 5 5 6 7 6 5. The fifth excerpt, starting at measure 3, is in 4/4 time and features a melody with scale degrees 5 5 5 5 4 4 4 4 3 3 3 3 2 2 2 2 1 1 1 1 7 7 7 7 6 6 6 6 5 5 5 5. The sixth excerpt, starting at measure 3, is in 4/4 time and features a melody with scale degrees 5 5 5 5 4 4 4 4 3 3 3 3 2 2 2 2 1 1 1 1 7 1.

114. Musical Example 20 below uses the same notes as in Musical Example 19 but highlights (in **red**) the corresponding notes in Czerny and “Levitating” with *identical scale degree, pitch, metric placement, and rhythmic duration*. Notes that are *identical* in scale degree, pitch, and metric placement but different in rhythmic duration are highlighted in **purple**. Scale degree 3 in Czerny is the pitch E while scale degree 3 in “Levitating” is E-flat. The corresponding scale degree 3 notes that are *identical* in rhythmic duration, metric placement, and scale degree but different in pitch, are also highlighted in **purple**.

MUSICAL EXAMPLE 20

“Wiggle” / Czerny, Op. 299, No. 22 bars 9-12 / “Levitating”

The image displays three musical staves with corresponding scale degree numbers above them. The first staff, labeled "Wiggle and a Giggle All Night" (0:24), is in 4/4 time and shows scale degrees: 5 5 3 3 3 3 2 3 2 1 1 1 1 7 7 7 6 6 6 6 6 6 7 6 5 5 5. The second staff, labeled "Czerny Op. 299, No. 22 bars 9-12", is in 4/4 time and shows scale degrees: 5 5 5 5 4 4 4 4 3 3 3 3 2 2 2 2 1 1 1 1 1 1 1 1 2 2 2 2 3 3 3 3. The third staff, labeled "Levitating" (0:10), is in 4/4 time and shows scale degrees: 5 5 5 5 4 4 4 4 3 3 3 3 2 2 2 2 1 1 1 1 1 7 1 1. Notes are color-coded: red for identical scale degree, metric placement, and rhythmic duration to Czerny; purple for identical pitch, metric placement, and rhythmic duration to Czerny. In the 'Levitating' staff, the first four notes (5 5 5 5) are red, and the remaining notes are purple.

115. As shown in Musical Example 20 above, 38 out of a total of 46 notes (approximately 82% of the notes) in “Levitating” are *identical* in scale degree, metric placement, and rhythmic duration to Czerny. Even if the 8 notes on scale degree 3 highlighted in **purple** are not counted, 30 out of a total of 46 notes (approximately 65% of the notes) in “Levitating” are *identical* in pitch, metric placement, and rhythmic duration to Czerny.

116. Moreover, within both the Czerny study and “Levitating”, the descending scale in bar 1 is identically repeated in bar 3: the descent starts on a repeating scale degree 5. However, as shown in Musical Example 20 above and by way of difference, in “Wiggle” the descending melody in bar 3 starts **a step lower** (on a repeating scale degree 2) as compared with the descending melody in bar 1 which starts on a repeating

scale degree 3. Starting and continuing a step lower in the second melodic phrase in bar 3 as compared with the first melodic phrase in bar 1 in “Wiggle” is a difference between “Levitating” and “Wiggle”, while starting both the first and second melodic phrases on the same note is an identity between this Czerny study and “Levitating”.

117. The obvious similarities between the melodies at issue in “Levitating” and the Czerny piano study #22 bars 9-12 are demonstrated on Track 5 of **Audio Exhibit 1** attached to this report. Therein, using the transcriptions of Czerny and “Levitating” in Musical Examples 19 and 20 above, the opening 5 beats of the melodies at issue (a total of twenty notes each) are paired using “MIDI files” that represent the transcriptions above.²⁸ Track 5 places side-by-side, the melody in the Czerny study starting on a G pitch, followed by the melody in “Levitating” also starting on a G pitch. This pairing of the Czerny study and “Levitating” is presented four times on Track 5 of **Audio Exhibit 1**. This comparative audio track demonstrates the musical building block similarity at issue.

118. Musical Example 21 below uses the same notes as in Musical Examples 19 and 20. The purpose of Musical Example 21 is to filter out (with **Xs**) the notes in “Levitating” that (1) are not the same as in “Wiggle” and/or (2) are also in the prior artwork by Czerny.

²⁸ In the Sibelius transcription software used to notate the transcriptions in this report, one can create a MIDI file that plays the notes of a transcription.

120. In summary, whereas bars 5-8 in the Czerny piano study #22 share more identical notes with the melody at issue in “Wiggle” than are shared between “Wiggle” and “Levitating” in parallel keys, bars 9-12 of Czerny’s study share more identical notes with the melody at issue in “Levitating” than there are between the melodies at issue in “Wiggle” and “Levitating” in parallel keys. Consequently, the Czerny piano study #22 significantly undermines and debilitates Plaintiffs’ claims. The similarity at issue is repeating notes in a descending scale which is a musical building block that no composer can monopolize.

(4) Etudes for the Left Hand, Opus 718, #15, bars 13-16

121. The second set of studies by Czerny in this report is from his book, *Etudes for the Left Hand*, Opus 718. A copy of the book cover and study #15 on pages 19-20 from the book are attached as **Visual Exhibit F**. Bars 13-14 of study #15 consist of rapid sixteenth notes in which each note is iterated four times and descends in stepwise motion to adjacent notes. As shown in Musical Example 22 below, starting on beat 4 of bar 1 (on scale degrees 5 5 5 5) in the Czerny study and on beat 1 in bar 1 of “Levitating” (on scale degrees 5 5 5 5), there are far more identical notes between bars 1-2 of Czerny’s study and bars 1-2 of “Levitating” than between “Wiggle” and “Levitating”. Insofar as the second melodic phrase in bars 3-4 of “Levitating” is, except for two notes, identical to bars 1-2 of “Levitating”, the melodic similarities between bars 1-2 of “Levitating” and Czerny continue in bars 3-4 of “Levitating”. The expression in bars 3-4 of the Czerny study are significantly different and not at issue. In Musical Example 22 below, “Wiggle” is on the top staff, the Czerny study #15 is on the middle staff, and “Levitating” is on the bottom staff.

adjacent pitches or that repeat the same pitch which is a fragment of a musical building block.

MUSICAL EXAMPLE 22

“Wiggle” / “Czerny Op. 718, No. 15, bars 13-16 / “Levitating”

Scale degree numbers for Musical Example 22:

- "Wiggle and a Giggle All Night" (0:24):** 5 5 3 3 3 3 2 3 2 1 1 1 1 7 7 7 6 6 6 6 6 6 7 6 5 5 5
- Czerny Op. 718, No. 15:** 1 1 1 1 7 7 7 7 6 6 6 6 5 5 5 5 4 4 4 4 3 3 3 3 2 2 2 2 1 1 1 1
- "Levitating" (0:10):** 5 5 5 5 4 4 4 4 3 3 3 3 2 2 2 2 1 1 1 1 1 7 1 1

Continuation of scale degree numbers for Musical Example 22:

- Staff 1 (Wiggle):** 3 2 2 2 2 1 1 1 1 7 7 7 2 6 6 6 5 5 5 5 5 6 7 6 5
- Staff 2 (Czerny):** 2 4 3 4 2 2 1 2 5 5 4 5 5 5 4 5 1 3 1 5 3 1 5 3 1
- Staff 3 (Levitating):** 5 5 5 5 4 4 4 4 3 3 3 3 2 2 2 2 1 1 1 1 7 1

122. Musical Example 23 below uses the same notes as in Musical Example 22, adds brackets over the melodies in Czerny and “Levitating”, and highlights in **red** the corresponding scale degree numbers with *identical* scale degrees and rhythmic durations but with different metric placements. Corresponding numbers on scale degree 3 are highlighted in **purple** because scale degree 3 in Czerny is an “E” pitch but scale degree 3 in “Levitating” is an “Eb” (E-flat) pitch. This difference in the pitch of scale degree 3 is a result of a difference in modality: Czerny is in a major key (like “Wiggle”) but “Levitating” is in a minor key.

MUSICAL EXAMPLE 23

“Wiggle” / Czerny, Op. 718, No. 15 bars 13-16 / “Levitating”

Musical Example 23 displays three musical staves with fingerings indicated by numbers 1-7 above the notes. The first staff, labeled "Wiggle and a Giggle All Night" 0:24, is in 4/4 time and shows fingerings: 5 5, 3 3 3 3 2 3 2 1, 1 1 1 7 7 7, 6 6 6 6 6 6 7, 6, 5 5 5. The second staff, labeled "Czerny Op. 718, No. 15", is in 4/4 time and shows fingerings: 1 1 1 1 7 7 7 7 6 6 6 6, followed by a red bracketed sequence: 5 5 5 5, 4 4 4 4 3 3 3 2 2 2 2 1 1 1 1. The third staff, labeled "Levitating" 0:10, is in 4/4 time and shows fingerings: 5 5 5 5 4 4 4 4 3 3 3 2 2 2 2, followed by a red bracketed sequence: 1 1 1 1, 1, 7, 1, 1. Below these are three more staves showing further musical notation and fingerings, including a red bracketed sequence: 5 5 5 5 4 4 4 4 3 3 3 2 2 2 2, 1 1, 1, 7, 1.

123. As shown in Musical Example 23 above, 38 out of a total of 46 notes (approximately 82%) in “Levitating” are *identical* in scale degree and rhythmic duration (but not in metric placement) and 30 (highlighted in **red**) are identical in scale degree, pitch, and rhythmic duration (but not in metric placement) as compared to the Czerny study Opus 718.

124. Musical Example 24 below uses the same notes as in Musical Examples 22 and 23. The purpose of Musical Example 24 is to filter out (with **Xs**) the notes in “Levitating” that are (1) not the same as in “Wiggle” and/or (2) also in the prior artwork by Czerny. As shown in Musical Example 24, only one note out of 46 notes in “Levitating” remains after this filtration process. That corresponding note is highlighted

in **purple** because, as noted above, while the corresponding note is on scale degree “7”, the pitch is different: scale degree 7 is a “B” pitch in “Wiggle”, but it is a “Bb” pitch in “Levitating”.³⁰

MUSICAL EXAMPLE 24

“Wiggle” / Czerny, Op. 718, No. 15 bars 13-16 / “Levitating”

³⁰ As shown in the alternate versions of Musical Examples 22 and 24 in **Visual Exhibit B**, using relative keys, after filtering out notes in “Levitating” that are (1) different from notes in “Wiggle” and/or (2) shared by the Czerny study, 16 out of 46 notes in “Levitating” remain (i.e., they are not filtered out) based on pitch, rhythmic duration, and metric placement (but different in scale degree) as corresponding notes in “Wiggle”. Thus, even when disregarding the different scale degrees (which are almost completely different) between “Wiggle” and “Levitating”, (1) 65% of the corresponding notes are filtered out from “Levitating” and (2) the notes that are not filtered out are fragmentary and insignificant: they are in groups of 4 or 5 notes which are all sixteenth notes that are on adjacent pitches or that merely repeat the same pitch, which is merely a fragment of a musical building block.

125. In summary, in parallel keys, 30 out of a total of 46 notes (approximately 65%) in “Levitating” are *identical* in scale degree, pitch, and rhythmic duration (but not in metric placement) as compared to the Czerny study Opus 718 and after filtering out the notes in “Levitating” that are (1) not the same as in “Wiggle” and/or (2) also in the prior artwork by Czerny, only one note out of 46 notes in “Levitating” remains. As noted above, the similarity at issue – repeating notes in a descending scale – is a musical building block that no composer can monopolize. When combined with the analysis and findings, the Czerny piano study Opus 299, #22 and the Czerny piano study Opus 718, #15 significantly undermine and debilitate Plaintiffs’ claims.

(5) “Stayin’ Alive” (1977) by The Bee Gees

126. As analyzed in the section on “Rhythm” earlier in this report, “Stayin’ Alive”, recorded by The Bee Gees, was released in 1977 as a single from the *Saturday Night Fever* soundtrack. The single was #1 for four consecutive weeks on the *Billboard* “Hot 100” in early 1978, a year before the release of “Wiggle”. A copy of the published sheet music of “Stayin’ Alive” is attached as **Visual Exhibit G**. The “Stayin’ Alive” audio is available on YouTube at https://www.youtube.com/watch?v=I_izvAbhExY. The descending melody at issue (which opens the Chorus) starts at 0:33. As shown in Musical Example 3 earlier in this report and in the accompanying analysis, the drumbeat and percussion in “Wiggle” and “Stayin’ Alive” are more similar than the almost non-existent similarity between the drumbeats in “Wiggle” and “Levitating”. Indeed, the drumbeat similarity between “Wiggle” and “Levitating” is the basic and commonplace “four-on-the-floor” kick drum pattern. “Stayin’ Alive” also uses a “four-on-the-floor” kick drum pattern. However, in addition to that similarity, “Stayin’ Alive” and “Wiggle” have continuous sixteenth notes on a shaker and continuous sixteenth notes are also on the hi-hat in “Wiggle”. Thus, the drumbeats and percussion rhythms are more similar between “Stayin’ Alive” and “Wiggle” than between “Wiggle” and “Levitating”. In addition, the tempo of “Stayin’ Alive”, 103 BPM, is the same as the 103 BPM tempo of “Levitating”. As explained above, the tempo of “Wiggle” is faster at approximately 106 BPM.

The Melody at Issue in “Levitating” Is More Similar to the Descending Melody in “Stayin’ Alive” Than the Melody at Issue in “Wiggle”

127. While “Wiggle” is in a major key, “Stayin’ Alive” and “Levitating” are in minor keys. The opening Chorus melody in “Stayin’ Alive” has many more similar corresponding notes as compared with the melody at issue in “Levitating” than exist between “Wiggle” and “Levitating” as shown in Musical Example 25 below. Therein, “Wiggle” is on the top staff (in C major), “Stayin’ Alive” is in the middle staff, and “Levitating” is on the bottom staff (with “Stayin’ Alive” and “Levitating” in the parallel key of C minor).

MUSICAL EXAMPLE 25

“Wiggle” / “Stayin’ Alive” / “Levitating”

5 5 3 3 3 3 2 3 2 1 1 1 1 7 7 7 6 6 6 6 6 6 7 6 5 5 5

"Wiggle and a Giggle All Night" 0:24

5 5 5 5 5 4 4 4 3 3 3 3 2 2 2 3 3 3 2 3 3 3

"Stayin' Alive" 0:33

5 5 5 5 4 4 4 4 3 3 3 3 2 2 2 2 1 1 1 1 1 7 1 1

"Levitating" 0:10

3 2 2 2 2 1 1 1 1 7 7 7 2 6 6 6 5 5 5 5 5 6 7 6 5

5 5 5 5 5 4 4 4 3 3 3 3 2 2 2 2 3 3 3 2 3 3 3

5 5 5 5 4 4 4 4 3 3 3 3 2 2 2 2 1 1 1 1 7 1

128. As shown in Musical Example 25 above, within both “Stayin’ Alive” and “Levitating”, the descending melodies in bar 1 and in bar 3 each start with four iterations of scale degree 5, i.e., the melodies start on the same pitch. However, within “Wiggle”, the descending melody in bar 1 starts on scale degree 3 (an “E” pitch) and the descending melody in bar 3 starts on scale degree 2 (a “D” pitch), **a step lower**. Thus, the melodic structure and development of the melodies in “Stayin’ Alive” and “Levitating” are very similar, while they are very different between “Wiggle” and “Levitating”.

129. The chart below provides scale degrees of the notes in bar 1 of “Wiggle”, “Stayin’ Alive”, and “Levitating” as shown in Musical Example 25 above. While 13 of the 16 notes in “Levitating” have identical scale degrees compared to corresponding notes in “Stayin’ Alive”, there is a complete absence of any identical corresponding scale degrees between “Wiggle” and “Levitating” as demonstrated in the following chart. Identical corresponding scale degrees are highlighted in red (or in purple if the notes are of different rhythmic duration).

“Wiggle” bar 1: 5 5 3 3 3 3 2 3 2 1 1 1 1 7 7 7
 “Stayin’ Alive” bar 1: 5 5 5 5 5 4 4 4 3 3 3 3 2 2 2
 “Levitating” bar 1: 5 5 5 5 4 4 4 4 3 3 3 3 2 2 2 2

130. Now comparing scale degrees in bar 3 of “Wiggle”, “Stayin’ Alive”, and “Levitating”, once again while 13 of the 16 notes in “Levitating” have identical scale degrees compared to corresponding notes in “Stayin’ Alive”, there is a complete absence of any identical corresponding scale degrees between “Wiggle” and “Levitating”.

“Wiggle” bar 3: 5 5 5 2 2 2 2 1 1 1 1 7 7 7 2 6 6 6
 “Stayin’ Alive” bar 3: 5 5 5 5 5 4 4 4 3 3 3 3 2 2 2
 “Levitating” bar 3: 1 5 5 5 5 4 4 4 4 3 3 3 3 2 2 2 2

131. The melodic rhythm in bar 1 of “Wiggle” and “Stayin’ Alive” is marked by a “tied” (held over) note represented by a curved line that is on the eighth ninth note, identified with red arrows (↓) in Musical Example 25 above. This tied note in the descending melodies in “Wiggle” and “Stayin’ Alive” creates a “syncopation” (i.e., an

interruption of the beat) in “Wiggle” and “Stayin’ Alive” whereas there is no syncopation in the melody at issue in “Levitating”.

132. Musical Example 26 below uses the same notes as in Musical Example 25 but highlights in **red** the corresponding notes with *identical* scale degrees, pitches, metric placements, and rhythmic durations in parallel keys.

MUSICAL EXAMPLE 26

“Wiggle” / “Stayin’ Alive” / “Levitating”

The musical example consists of three staves, each in 4/4 time. The first staff, "Wiggle and a Giggle All Night" (0:24), is in G major. The second staff, "Stayin' Alive" (0:33), and the third staff, "Levitating" (0:10), are in E-flat major. Red highlights are placed on notes in the "Levitating" staff that correspond to notes in the "Stayin' Alive" staff, indicating identical scale degrees, pitches, metric placements, and rhythmic durations. Fingerings are indicated by numbers 1-7 above the notes.

133. As shown with **red** highlighted notes in Musical Example 26 above, 23 out of a total of 46 notes (50%) in “Levitating” are *identical* in scale degree, pitch, metric placement, and rhythmic duration to notes in the melody in “Stayin’ Alive”.

134. Musical Example 27 below uses the same notes as in Musical Examples 25 and 26. The purpose of Musical Example 27 is to filter out (with **Xs**) the notes in “Levitating” that (1) are not the same as in “Wiggle” and/or (2) are also in the “Stayin’ Alive” prior artwork. Only one note out of 46 notes in “Levitating” remains after this filtration process. That note is scale degree 7 in bar 2 in “Wiggle” and “Levitating” and is highlighted in **purple** because, as noted above, while the corresponding note is on scale degree “7”, the pitch is different: scale degree 7 is a “B” pitch in “Wiggle” but it is a “Bb” pitch in “Levitating”.

MUSICAL EXAMPLE 27

“Wiggle” / “Stayin’ Alive” / “Levitating”

Musical Example 27 displays three musical staves, each with scale degree annotations above the notes. The first staff, "Wiggle and a Giggle All Night" (0:24), is in 4/4 time and shows scale degrees: 5 5 3 3 3 3 2 3 2 1 1 1 1 7 7 7 6 6 6 6 6 6 7 6 5 5 5. The second staff, "Stayin' Alive" (0:33), is in 4/4 time and shows scale degrees: 5 5 5 5 5 4 4 4 3 3 3 3 2 2 2 3 3 3 2 3 3 3. The third staff, "Levitating" (0:10), is in 4/4 time and shows scale degrees: 5 5 5 5 4 4 4 4 3 3 3 3 2 2 2 2 1 1 1 1 7 1 1. The notes in the "Levitating" staff are marked with red Xs, indicating they are filtered out. The only note that remains is the scale degree 7 in bar 2, which is highlighted in purple.

3 2 2 2 2 1 1 1 1 7 7 7 2 6 6 6 5 5 5 5 5 6 7 6 5

5 5 5 5 5 4 4 4 3 3 3 3 2 2 2 2 3 3 3 2 3 3 3

5 5 5 5 4 4 4 4 3 3 3 3 2 2 2 2 1 1 1 1 7 1

135. As shown in the alternate version of Musical Example 25 in **Visual Exhibit B**, when compared in “relative” keys, 23 out of a total of 46 notes (50%) in “Levitating” are *identical* in scale degree, pitch, metric placement, and rhythmic duration to notes in the melody in “Stayin’ Alive”. Moreover, as shown in Musical Example 27 in **Visual Exhibit B**, only seven notes out of 46 notes in “Levitating” are not filtered out. All that remains are an isolated scale degree 4 and an isolated scale degree 2 in bar 1, and in bar 2, four iterations of scale degree 1, and an isolated scale degree 1. Thus, the expression that remains after the filtration process is scant and minimal.

136. Indeed, whether compared in “parallel” keys as above or in “relative” keys as in **Visual Exhibit B**, the opening bars of the memorable Chorus in “Stayin’ Alive” undermine a musicological claim that the musical building block that is shared by “Wiggle” and “Levitating” can be monopolized by Plaintiffs.

137. In summary, there are more similarities between “Stayin’ Alive” and “Levitating” than there are between “Wiggle” and “Levitating” because:

- While “Wiggle” is in a major key, “Stayin’ Alive” and “Levitating” are in minor keys.
- In “Stayin’ Alive” and “Levitating”, the descending melodies in bars 1 and 3 start with four iterations of scale degree 5, i.e., the melodies in bars 1 and 3 start on the same pitch. However, within “Wiggle”, the descending melody in bar 1 starts on scale degree 3 (an “E” pitch) but the descending melody in bar 3 starts on scale degree 2 (a “D” pitch), **a step lower**. This not only points to a similarity between “Stayin’ Alive” and “Levitating” that is not shared by “Wiggle”, but it also points to a difference between “Wiggle” and “Levitating”.
- 23 out of a total of 46 notes (50%) in “Levitating” are *identical* in scale degree, pitch, metric placement, and rhythmic duration to the melody in “Stayin’ Alive” whether compared in parallel or relative keys.
- Only one note out of 46 notes in “Levitating” remains after filtering out the notes that are different in “Wiggle” and/or the notes that are shared by “Stayin’ Alive” when analyzed in parallel keys. When analyzed in relative

keys, only seven notes out of 46 notes in “Levitating” are not filtered out, and those consist of bare and fragmentary isolated notes and four iterations of scale degree 1.

138. On the basis of my analysis, the well-known melody that opens the Chorus of “Stayin’ Alive” (which was a huge hit in the year before “Wiggle”) significantly undermines and debilitates Plaintiffs’ claims.

(6) “Ging Gang Goolie” (created by 1920)

139. “Ging Gang Goolie” is a song associated with the international Scouting movement. The song was written by Robert Baden-Powell, the founder of the World Scouting movement and introduced at the 1st World Scout Jamboree in 1920 in England. There are numerous online performances. For example, there is a version by Eric Idle and Ricky Fataar (“Dirk and Stig”) of “Ging Gang Goolie” (1978) linked below. The descending melody by Dirk and Stig occurs at 1:29.

<https://www.youtube.com/watch?v=O6SOaDKHoCk>. I based my transcription on the performance in <https://youtube.com/watch?v=A1Ynm4cqTg>.

140. “Ging Gang Goolie” is in a major key as is “Wiggle”. As shown in Musical Example 28 below, “Ging Gang Goolie” embodies the descending melodic musical building block at issue. In Musical Example 28 below, “Wiggle” is on the top staff, “Ging Gang Goolie” is on the middle staff, and “Levitating” is on the bottom staff.

MUSICAL EXAMPLE 28

“Wiggle” / “Ging Gang Goolie” / “Levitating”

"Wiggle and a Giggle All Night" 0:24

"Ging Gang Goolie" 0:45

"Levitating" 0:10

141. Musical Example 29 below uses the same notes as in Musical Example 28 but highlights (in **red**) the corresponding notes in “Ging Gang Goolie” and “Levitating” with *identical* scale degree, pitch, metric placement, and rhythmic duration. Notes that are identical in scale degree, pitch, and metric placement but different in rhythmic duration are highlighted in **purple**. Scale degree 3 in “Ging Gang Goolie” is the pitch E while scale degree 3 in “Levitating” is E-flat. The corresponding scale degree 3 notes that are *identical* in rhythmic duration, metric placement, and scale degree but different in pitch, are highlighted in **purple**.

MUSICAL EXAMPLE 29

“Wiggle” / “Ging Gang Goolie” / “Levitating”

"Wiggle and a Giggle All Night" 0:24

"Ging Gang Goolie" 0:45

"Levitating" 0:10

142. As shown in Musical Example 29 above, 22 out of a total of 46 notes (approximately 47% of the notes) in “Levitating” are *identical* in scale degree, metric placement, and rhythmic duration to “Ging Gang Goolie”. As noted above, while the four notes that are highlighted in **purple** in bar 1 have identical scale degree, metric, placement, and rhythmic duration as the corresponding four notes in “Levitating”, the pitch in “Ging Gang Goolie” is “E” while the pitch in “Levitating” is Eb.

143. Musical Example 30 below uses the same notes as in Musical Examples 28 and 29. The purpose of Musical Example 30 is to filter out (with **Xs**) the notes in “Levitating” that (1) are not the same as in “Wiggle” and/or (2) are also in the prior

artwork, “Ging Gang Goolie”. Only one note out of 46 notes in “Levitating” remains after this filtration process and that note, although the same in scale degree, rhythmic duration, and metric placement, is different in pitch as compared with “Wiggle”.³¹

MUSICAL EXAMPLE 30

“Wiggle” / “Ging Gang Goolie” / “Levitating”

The image displays three musical staves, each with fingerings (1-7) written above the notes. The first staff is for "Wiggle and a Giggle All Night" (0:24) in 4/4 time. The second staff is for "Ging Gang Goolie" (0:45) in 4/4 time. The third staff is for "Levitating" (0:10) in 4/4 time. The "Levitating" staff has many notes marked with red 'X's, indicating they were filtered out. The notes that remain are those that are the same in pitch, rhythmic duration, and metric placement as notes in "Wiggle" and/or "Ging Gang Goolie".

³¹ As shown in the alternate versions of Musical Examples 28 and 30 in **Visual Exhibit B**, using relative keys, after filtering out notes in “Levitating” that (1) are different from notes in “Wiggle” and/or (2) are in “Ging Gang Goolie”, 16 out of 46 notes in “Levitating” remain because they are the same in pitch, rhythmic duration, and metric placement (but different in scale degree) as corresponding notes in “Wiggle”. Thus, even when disregarding the different scale degrees (which are almost completely different) between “Wiggle” and “Levitating”, (1) 65% of the corresponding notes are filtered out from “Levitating” and (2) the notes that are not filtered out are fragmentary and insignificant: the remaining notes are in groups of 4 or 5 notes which are all sixteenth notes that are on adjacent pitches or that repeat the same pitch, which is merely a fragment of a musical building block.

144. In summary, “Ging Gang Goolie” embodies the descending musical building block melody at issue, which adds additional musicological weight to the finding that the similarity between “Levitating” and “Wiggle” is a musical building block that cannot be monopolized by Plaintiffs. Consequently, the addition of “Ging Gang Goolie” to the other prior art works analyzed above significantly undermines and debilitates Plaintiffs’ claims.

(7) “Se dice de mi” (1943)

145. “Se dice de mi” (hereafter, “Se dice”) was composed by South American composer, violinist, and orchestra conductor Francisco Canaro (1888-1964). Canaro was a well-known tango composer and conductor in South America during the 1940s and 1950s. He was involved in the creation of the Argentine Society of Composers and Songwriters.

146. “Se dice” was published as sheet music and released as a sound recording in 1943. Canaro conducted the orchestra and Carlos Roldan sang the vocal part in the 1943 audio release. The sheet music is attached as **Visual Exhibit H**. The Bridge section therein embodies the melodic similarity at issue. While “Se dice” begins and ends in the key of C minor, the Bridge section opens firmly in the key of C major and embodies the main melodic similarity at issue in C major.

147. As shown in the attached sheet music, the chords in the accompaniment in the Bridge section (3 bars of a C chord, 4 bars of a G7/B chord, and one bar of a C chord) are much more similar to the chords in “Wiggle” (which is also in a major key) than the very different chords between “Wiggle” and “Levitating”. (See the analysis in the section on Harmony above in this report.)

148. In Musical Example 31 below, scale degree numbers are input above the notes in the three melodies at issue in “Se dice”, “Wiggle”, and “Levitating”.

MUSICAL EXAMPLE 31

"Se dice de mi" / "Wiggle" / "Levitating"

5 6 7 1 1 1 1 2 2 2 2 3 3 3 3 2 2 2 2 1 1 1 1 7 7 7 7 6 4 5 6

"Se dice de mi" (Bridge)

5 5 3 3 3 3 2 3 2 1 1 1 1 7 7 7 6 6 6 6 6 7 6 5 5 5

"Wiggle and a Giggle All Night" 0:24

5 5 5 5 4 4 4 4 3 3 3 3 2 2 2 2 1 1 1 1 1 7 1 1

"Levitating" 0:10

3 7 7 7 7 1 1 1 1 2 2 2 2 1 1 1 1 7 7 7 7 6 6 6 6 5

2 2 2 2 1 1 1 1 7 7 7 2 6 6 6 5 5 5 5 5 6 7 6 5

5 5 5 5 4 4 4 4 3 3 3 3 2 2 2 2 1 1 1 1 7 1

149. As shown in Musical Example 31 above, "Se dice" is in 2/4 meter and, after the pickup notes, in bar 1 the melody ascends with sixteenth notes on scale degrees 1 1 1 1 2 2 2 2. Notably, from bar 2 through the first beat of bar 4 (in 2/4 meter) in "Se dice", the notes are more similar to the descending melody at issue in bar 1 through the first note of bar 2 in "Wiggle", than between those corresponding notes in "Levitating" and "Wiggle". In the charts and in Musical Example 32 below, the scale degrees of notes with identical scale degree, pitch, rhythmic duration, and metric placement are highlighted in **red**. The scale degree numbers with identical scale

degrees, pitches, and metric placements but different rhythmic durations are highlighted in **purple**.

“Se dice” starting on beat 1**: 3 3 3 3 2 2 2 2 1 1 1 1 7 7 7 7 6

“Wiggle” starting on beat 1: 3 3 3 3 2 3 2 1 1 1 1 7 7 7 6

“Levitating” starting on beat 1: 5 5 5 5 4 4 4 4 3 3 3 3 2 2 2 2 1

**This is beat 1 of bar 2 because “Se dice” is in 2/4-meter

150. In addition, the first melodic phrase is repeated down a whole step in the second melodic phrase in “Se dice” and “Wiggle”, but not in “Levitating” as shown in the charts below, and in Musical Example 32 below.

“Se dice” starting on beat 1**: 2 2 2 2 1 1 1 1 7 7 7 7 6 6 6 6 5

“Wiggle” starting on beat 1: 2 2 2 2 1 1 1 1 7 7 7 2 6 6 6 5

“Levitating” starting on beat 1: 5 5 5 5 4 4 4 4 3 3 3 3 2 2 2 2 1

**This is beat 1 of bar 6 because “Se dice” is in 2/4-meter.

151. 24 notes have **red** highlighted scale degrees because they are identical in pitch, scale degree, and rhythmic duration (but not metric placement) and four additional notes have **purple** highlighted scale degrees because they are identical pitch and scale degree (but not in rhythmic duration). Thus, 28 notes out of 31 notes charted above and bracketed in Musical Example 32 below are highlighted in the corresponding melodies between “Se dice” and “Wiggle”.

MUSICAL EXAMPLE 32**“Se dice de mi” / “Wiggle” / “Levitating”**

5 6 7 1 1 1 1 2 2 2 2 3 3 3 3 2 2 2 1 1 1 1 7 7 7 6 4 5 6

"Se dice de mi" (Bridge)

5 5 3 3 3 3 2 3 2 1 1 1 1 7 7 7 6 6 6 6 6 6 7 6 5 5 5

"Wiggle and a Giggle All Night" 0:24

5 5 5 5 4 4 4 4 3 3 3 3 2 2 2 2 1 1 1 1 1 7 1 1

"Levitating" 0:10

3 7 7 7 7 1 1 1 1 2 2 2 2 1 1 1 1 7 7 7 7 6 6 6 6 5

2 2 2 2 1 1 1 1 7 7 7 2 6 6 6 5 5 5 5 5 6 7 6 5

5 5 5 5 4 4 4 4 3 3 3 3 2 2 2 2 1 1 1 1 7 1

152. Using the notes, brackets, and highlighted scale degrees from Musical Example 32, in Musical Example 32A below, the bracketed portion of the melody in “Se dice” in bars 2-4 (in 2/4 meter) is on the top staff and the bracketed portion of the melody in “Wiggle” in bars 1-2 (in 4/4 meter) is on the bottom staff.

MUSICAL EXAMPLE 32A**“Se dice de mi” / “Wiggle”**

Musical Example 32A shows two musical staves. The top staff is for "Se dice de mi" (Bridge) in 2/4 time, and the bottom staff is for "Wiggle and a Giggle All Night" in 4/4 time. Both staves have scale degrees written above the notes. The top staff has a bracketed portion of the melody in bars 6-8. The bottom staff has a bracketed portion of the melody in bars 3-4. The scale degrees for the top staff are: 3 3 3 3 2 2 2 2 1 1 1 1 7 7 7 7 6. The scale degrees for the bottom staff are: 3 3 3 3 2 3 2 1 1 1 1 7 7 7 6 6 6 6 6 6 7 6 5 5 5.

153. Once again using the notes, brackets, and highlighted scale degrees from Musical Example 32, in Musical Example 32B below, the bracketed portion of the melody in “Se dice” in bars 6-8 (in 2/4 meter) is on the top staff and the bracketed portion of the melody in “Wiggle” in bars 3-4 (in 4/4 meter) is on the bottom staff.

MUSICAL EXAMPLE 32B**“Se dice de mi” / “Wiggle”**

Musical Example 32B shows two musical staves. The top staff is for "Se dice de mi" (Bridge) in 2/4 time, and the bottom staff is for "Wiggle and a Giggle All Night" in 4/4 time. Both staves have scale degrees written above the notes. The top staff has a bracketed portion of the melody in bars 6-8. The bottom staff has a bracketed portion of the melody in bars 3-4. The scale degrees for the top staff are: 2 2 2 2 1 1 1 1 7 7 7 7 6 6 6 6 5. The scale degrees for the bottom staff are: 2 2 2 2 1 1 1 1 7 7 7 2 6 6 6 5 5 5 5 5 6 7 6 5.

154. As shown in Musical Examples 32, 32A, and 32B above, the similarity between “Se dice” and “Wiggle” is greater than the similarity between “Wiggle” and “Levitating”, and in both cases, that similarity is the use of a musical building block.

155. Musical Example 33 below uses the same notes as in Musical Examples 31 and 32. The purpose of Musical Example 33 is to filter out (with **Xs**) the notes in “Levitating” that (1) are not the same as in “Wiggle” and/or (2) are also in the prior

artwork, “Se dice”. Not one note out of 46 notes in “Levitating” remains after this filtration process.³²

MUSICAL EXAMPLE 33

“Se dice de mi” / “Wiggle” / “Levitating”

The image displays three musical staves for comparison. The first staff, "Se dice de mi" (Bridge), is in 2/4 time and features a sequence of notes with fingerings: 5 6 7, 1 1 1 1 2 2 2 2, 3 3 3 3 2 2 2 2, 1 1 1 1 7 7 7 7, 6, 4 5 6. The second staff, "Wiggle and a Giggle All Night" (0:24), is in 4/4 time with fingerings: 5 5, 3 3 3 3 2 3 2 1, 1 1 1 7 7 7, 6 6 6 6 6 6 7, 6, 5 5 5. The third staff, "Levitating" (0:10), is in 4/4 time and shows a large number of notes marked with red X's, indicating they were filtered out. The notes that remain are marked with green checkmarks. The fingerings for the remaining notes are: 5 5 5 5 4 4 4 4, 3 3 3 3 2 2 2 2, 1 1 1 1 1, 7, 1, 1, 1, 7 7 7 7 1 1 1 1, 2 2 2 2 1 1 1 1, 7 7 7 7 6 6 6 6, 5, 3 3 4, 2 2 2 2 1 1 1 1, 7 7 7 2 6 6 6, 5 5 5 5 5 6 7 6 5, 5 5 5 5 4 4 4 4, 3 3 3 3 2 2 2 2, 1 1 1 1 1, 7, 1.

³² As shown in the alternate versions of Musical Examples 31, 32, and 33 in **Visual Exhibit B**, using relative keys, after filtering out notes in “Levitating” that (1) are different from notes in “Wiggle” and/or (2) are in “Se dice”, 14 out of 46 notes in “Levitating” remain because they are the same in pitch, rhythmic duration, and metric placement (but different in scale degree) as corresponding notes in “Wiggle”. Thus, even when disregarding the different scale degrees (which are almost completely different) between “Wiggle” and “Levitating”, (1) approximately 70% of the corresponding notes are filtered out from “Levitating” and (2) the notes that are not filtered out are fragmentary and insignificant: the remaining notes are in groups of 4 or 5 notes which are all sixteenth notes that are on adjacent pitches or that repeat the same pitch, which is merely a fragment of a musical building block.

156. In summary, the multiple prior art works analyzed above – “Contestación a la Casa en el Aire”, “El Cafetal – El Caimán”, Czerny Op. 299, Czerny Op. 718, “Stayin’ Alive”, “Ging Gang Goolie”, and “Se dice de mi” – **all** embody the unremarkable similarity at issue. From a musicological perspective, the aggregate of these numerous prior art works from a non-exhaustive search demonstrates that the similarity between “Levitating” and “Wiggle” is the use of a common preexisting musical building block that cannot be monopolized by Plaintiffs. Its appearance in so many works prior to “Wiggle” refutes any claim of copying and instead supports that “Levitating” – like many other works using repeated notes descending along a scale – was independently created.

The Musical Building Block Similarity at Issue Is Present in 19th-Century Exercise Books

157. In addition to the many prior art works analyzed above, the musical building block similarity at issue is also present in 19th century exercise books such as piano exercises by Albert Loeschhorn and trumpet exercises by J. B. Arban as shown below.

(8) Albert Loeschhorn (d. 1905) *Universal Studies*

158. (Carl) Albert Loeschhorn (b. 1819, d. 1905) published a series of piano studies books such as *Melodious Studies* and *School of Octaves* as well as many piano pieces. In his book “For The Medium Grade” from his series titled *Universal Studies*, Loeschhorn included “preparatory exercises”. A copy of the book cover and the preparatory exercise at issue on page 20 of the book are attached as **Visual Exhibit I**. The second line of the two-line “preparatory exercise” (which prepares students for “Etude X” on the same page) is based on the musical building block repetition of four sixteenth notes that ascend then descend in stepwise motion.

159. Loeschhorn’s preparatory exercise is in the key of C major. The transcription in Musical Example 34 below starts at the beginning of the repeating and descending sixteenth notes in Loeschhorn placed over bars 1-4 of the Verse in “Wiggle” and “Levitating”.

MUSICAL EXAMPLE 34

Loeschhorn / "Wiggle" / "Levitating"

Loeschhorn
Op. 169, No. 10
preparatory exercise

"Wiggle and a
Giggle All Night"
0:24

"Levitating"
0:10

3 1

160. Musical Example 35 below uses the same notes as in Musical Example 34 but adds brackets over the melodies in Loeschhorn, "Wiggle", and "Levitating" highlights in **red** the corresponding notes with identical scale degree, pitch, metric placement, and rhythmic duration and highlights in **purple** the corresponding notes with different rhythmic durations or those on scale degree 3 in which the pitch is "E" in Loeschhorn but "Eb" in "Levitating" because while Loeschhorn is in a major key (like "Wiggle"), "Levitating" is in a minor key. Alternate versions in relative keys of Musical Examples 34 and 35 are in **Visual Exhibit B**.

MUSICAL EXAMPLE 35**Loeschhorn / "Wiggle" / "Levitating"**

Loeschhorn
Op. 169, No. 10
preparatory exercise

"Wiggle and a
Giggle All Night"
0:24

"Levitating"
0:10

3 1

2 2 2 2 1 1 1 1 7 7 7 2 6 6 6 5 5 5 5 5 6 7 6 5

5 5 5 5 4 4 4 4 3 3 3 3 2 2 2 2 1 1 1 1 7 1

161. Using the notes, brackets, and highlighted scale degrees from Musical Example 35, in Musical Example 35A below, bars 1-2 in Loeschhorn are on the top staff and bars 3-4 in "Wiggle" are on the bottom staff. As shown in Musical Example 35A, there is a nearly identical descending melody with repeating notes in which the similarity at issue is a musical building block.

MUSICAL EXAMPLE 35A**Loeschhorn / "Wiggle"**

Musical Example 35A shows two musical staves in 4/4 time. The top staff is labeled "Loeschhorn Op. 169, No. 10 preparatory exercise" and the bottom staff is labeled "'Wiggle and a Giggle All Night' 0:28". Both staves feature a descending melody with repeating notes. The top staff has a bracketed sequence of notes with scale degrees 2 2 2 2 1 1 1 1 7 7 7 7 6 6 6 6 5 5 5 5, followed by 4 4 4 4 3 3 3 3 2 2 2 2. The bottom staff has a bracketed sequence of notes with scale degrees 2 2 2 2 1 1 1 1 7 7 7 2 6 6 6 5 5 5 5, followed by 5 6 7 6 5.

162. Once again using the notes, brackets, and highlighted scale degrees from Musical Example 35, in Musical Example 35B below, bars 2-3 in Loeschhorn are on the top staff and bars 1-2 in "Levitating" in the same octave (see footnote 16 above) are on the bottom staff. As shown in Musical Example 35B, there is a nearly identical descending melody with repeating notes in which the similarity at issue is a musical building block.

MUSICAL EXAMPLE 35B**Loeschhorn / "Levitating"**

Musical Example 35B shows two musical staves in 4/4 time. The top staff is labeled "Loeschhorn Op. 169, No. 10 preparatory exercise" and the bottom staff is labeled "'Levitating' 0:10". Both staves feature a descending melody with repeating notes. The top staff has a bracketed sequence of notes with scale degrees 5 5 5 5 4 4 4 4 3 3 3 3 2 2 2 2 1, followed by a whole note. The bottom staff has a bracketed sequence of notes with scale degrees 5 5 5 5 4 4 4 4 3 3 3 3 2 2 2 2 1, followed by 1 1 1 1 7 1 1.

163. Still using the notes, brackets, and highlighted scale degrees from Musical Example 35, in Musical Example 35C below, bars 2-3 in Loeschhorn are on the top staff and bars 3-4 in "Levitating" are on the bottom staff. As shown in Musical Example 35C below, there is a nearly identical descending melody with repeating notes in which the similarity at issue is a musical building block.

MUSICAL EXAMPLE 35C**Loeschhorn / “Levitating”**

The image shows two musical staves. The top staff is for Loeschhorn Op. 169, No. 10, a preparatory exercise in 4/4 time. It features a sequence of 16 sixteenth notes: five ascending (G4, A4, B4, C5, D5), four descending (C5, B4, A4, G4), four ascending (G3, A3, B3, C4), and three descending (B3, A3, G3). The bottom staff is for "Levitating" in 4/4 time, starting at 0:13. It features a sequence of 16 sixteenth notes: five ascending (G3, A3, B3, C4, D4), four descending (C4, B3, A3, G3), four ascending (G2, A2, B2, C3), and three descending (B2, A2, G2). Both staves have fingerings indicated above the notes: 5 5 5 5 4 4 4 4 3 3 3 3 2 2 2 2 1 for the top staff, and 5 5 5 5 4 4 4 4 3 3 3 3 2 2 2 2 1 1 1 1 7 1 for the bottom staff.

164. In summary, as analyzed above, the Loeschhorn preparatory exercise embodies the same musical building block that is shared between “Wiggle” and “Levitating”. Published by 1882, this is only one of multiple prior art works identified herein which embody the similarity at issue and establish that the musical building block at issue was a commonplace melodic device long before “Wiggle”.

(9) Jean-Baptiste Arban Complete Conservatory Method for Trumpet, #83 (1864)

165. Jean-Baptiste Arban (b. 1825, d. 1889) was a renowned trumpet (cornet) player and pedagogue: “Arban is acknowledged as the founder of the modern school of trumpet playing.”³³ His classic trumpet (cornet) method book, *Complete Conservatory Method for Trumpet*, first published in 1864, continues to be widely used by trumpet students and professionals. A copy of the book cover, publisher’s note, and exercise #83 on page 176 of the book are attached as **Visual Exhibit J**. Arban’s exercise #83 is based on the musical building block repetition of four sixteenth notes that ascend then descend in stepwise motion.

166. Arban’s exercise #83 is in the key of F major. In keeping with musicological practices and as explained and implemented above, the exercise is transposed to the key of C major in the transcriptions below. The transcription in Musical Example 36 below starts at the beginning of the repeating and descending sixteenth notes in bar 11 (in 2/4 meter) and placed over bars 1-4 of the Verse in

³³ *Baker’s Biographical Dictionary of Musicians*, (Schirmer Books, Eighth Edition, 1992, p. 50).

"Wiggle" and "Levitating". The number, #83, is circled and a handwritten arrow shows where the transcription starts in **Visual Exhibit J**.

MUSICAL EXAMPLE 36

Arban / "Wiggle" / "Levitating"

Arban Trumpet Method #83

"Wiggle and a Giggle All Night" 0:24

"Levitating" 0:10

Scale degrees for Arban Trumpet Method #83: 1 1 1 1 7 7 7 7 6 6 6 6 5 7 7 7 7 6 6 6 6 5 5 5 5 4

Scale degrees for "Wiggle and a Giggle All Night": 5 5 3 3 3 3 2 3 2 1 1 1 1 7 7 7 6 6 6 6 6 6 7 6 5 5 5

Scale degrees for "Levitating": 5 5 5 5 4 4 4 4 3 3 3 3 2 2 2 2 1 1 1 1 1 7 1 1 6 6 6 6 5 5 5 5 4 4 4 4 3 3 3 3 2 2 2 2 1 1 1 1 7 1 5 5 5 5 4 4 4 4 3 3 3 3 2 2 2 2 1 1 1 1 7 1

167. Musical Example 37 below uses the same notes as in Musical Example 36 but adds brackets over the melodies in Arban, "Wiggle", and "Levitating" and highlights corresponding notes in **red** and **purple** (the latter highlight when the corresponding scale degrees are the same, but the pitch is E as compared with Eb or when there is a difference in rhythmic duration). These highlighted notes represent the use of the musical building block that is at issue. Alternate versions in relative keys of Musical Examples 36 and 37 are in **Visual Exhibit B**.

MUSICAL EXAMPLE 37**Arban / “Wiggle” / “Levitating”**

Arban Trumpet Method #83

"Wiggle and a Giggle All Night" 0:24

"Levitating" 0:10

3

168. In summary, as analyzed above, Arban's trumpet exercise #83 embodies the musical building block that is shared between "Wiggle" and "Levitating". When combined with the numerous prior art works analyzed above, there is very strong musicological support for finding that the musical building block at issue was a commonplace melodic device long before "Wiggle" and cannot be monopolized by Plaintiffs.

Use of the Same Musical Block Building Block Appears Frequently in Other Popular Music Since “Wiggle”

169. In addition to the numerous prior art works and two exercise books identified above that embody expression at issue, there are related popular songs that were released **after** 1979 but before the 2020 release of “Levitating”. Such works, appearing in different genres and released in multiple countries, further demonstrate the commonplace nature of repeated notes that descend in scale-wise fashion, frequently sung in a “patter song” style. Such works include:

- (a) Paulino Rubio, Mio (Mexico, 1992) at 0:16. See <https://www.youtube.com/watch?v=mDQh6hZFOW4&t=16s>.
- (b) Christina Millian, “AM to PM” (U.S., 2001) at 0:36. See <https://www.youtube.com/watch?v=os-OoiMe5jc&t=36s>.
- (c) Isley Brothers, “What Would You Do, Pt. 2 (US, 2003) at 0:12. See <https://www.youtube.com/watch?v=FnQyC0E1Qgg&t=11s>.
- (d) Mashonda, “Back of the Club” (U.S., 2005) at 0:10. See <https://www.youtube.com/watch/kd8PPS3NC7U&t=10s>.
- (e) Lily Allen, “LDN” (U.K., 2006) at 0:11. See <https://www.youtube.com/watch?v=wmYT79tPvLg&t=10s>.
- (f) Momoiro Clover Z, “Neo STARGATE” (Japan, 2013) at 1:18. See <https://www.youtube.com/watch?v=tiX22vnR-SU&t=76s>.
- (g) Leo Soul, “Do Ya Thing” (U.S., 2016) at 0:38. See <https://www.youtube.com/watch?v=HfNgUdeW0SY&t=38s>.
- (h) Ricky Martin - Vente Pa' Ca ft. Maluma (U.S., 2016) at 0:29 (first heard), 1:27 (in vocal), 1:46 (on accordion). See e.g. <https://www.youtube.com/watch?v=iOe6dl2JhgU&t=29s> (also multiple covers and English version).

- (i) Grupo Marca Registrada, “Cumbia del Coralillo” (Mexico, 2017). See <https://www.youtube.com/watch?v=9FOsu01akkQ>.
- (j) Macky Gee, “Moments” (U.K., 2018) at 0:22 and 1:29. See https://www.youtube.com/watch?v=M3595q_gVlk&t=22s.
- (k) Ivy Queen, “La Roca” (Puerto Rico, 2019) at 0:07. See <https://www.youtube.com/watch?v=gCIlgLKNgQk&t=7s>.

170. Transcriptions from five of the above songs, “LDN” (2006) as recorded by Lily Allen, “Mio” (released in 1992) as recorded by Paulina Rubio, “What Would You Do, Pt. 2” as recorded by the Isley Brothers (2003), “Neo STARGATE” as recorded by Momoiro Clover Z (2013), and “Moments” as recorded by Macky Gee (2018), are in **Visual Exhibit K**. All of these diverse works reinforce the conclusion that there is very strong musicological support for finding that the musical building block at issue was a commonplace melodic device long before and after “Wiggle” and “Levitating” was created independently of “Wiggle”.

II. G. “Wiggle” and “Levitating” in Their Entireties

171. “Wiggle” and “Levitating”, in their entireties, are very different songs. Outside of the generic and inconsequential similarity that the vocal melodies at issue occur at the beginning of the Verse, the arrangement of elements in “Wiggle” and “Levitating” is very different. The many differences in arrangement elements include the following.

- Most of the Introduction of “Levitating” features synthesizer only, while there are many instruments in the Introduction of “Wiggle”.
- The drums are present throughout “Wiggle”, but the drums are largely absent (except for the last few beats) in the Intro and Re-intro of “Levitating”.
- Guitar is present throughout “Wiggle”, but the guitar in “Levitating” is only present during Pre-chorus, Chorus, and Post-chorus sections.
- There are no significant structural similarities but there are very significant structural differences between “Wiggle” and “Levitating”.

- The melodies at issue are developed very differently in “Wiggle” and “Levitating”.

172. In addition, while there are commonplace similarities in the instrumentation used in “Wiggle” and “Levitating”, there are also many differences in the instrumentation as charted immediately below.

Both “Wiggle” and “Levitating” contain the following instrumentation:

- Vocals
- Electric guitar
- Bass guitar
- Drums
- Cowbell
- Shaker
- Triangle

“Wiggle” alone contains the following instrumentation:

- Steel drums
- Acoustic guitar
- Solo violin
- Conga
- Claves

“Levitating” alone contains the following instrumentation:

- Talkbox/vocoder
- Synthesizers
- String synth
- Synth bass
- Sub-bass
- Hand claps

173. In summary, on the basis of my analysis of the songs in their entireties, I found that there are no significant melodic similarities between “Wiggle” and “Levitating”, but there are significant differences. Importantly, while there is a generic melodic similarity between “Wiggle” and “Levitating”, the melodic similarity is a musical building block that exists in prior art that was widely available before “Wiggle”, as shown in the “Prior Art” section of this report. When combined with my findings regarding structure, harmony, rhythm, melody, and lyrics, I found that there are no structural, harmonic, rhythmic, melodic, or lyrical similarities, individually or in the aggregate, that suggest that any musical or lyrical expression in “Levitating” was copied from “Wiggle”.

III. CONCLUSIONS REGARDING THE ANALYSIS OF **“WIGGLE” AND “LEVITATING”**

174. On the basis of my musicological analyses presented above, it is my professional opinion that there are no significant structural, harmonic, rhythmic, melodic, or lyrical similarities, individually or in the aggregate, between (1) “Wiggle” and “Levitating”. The only similarity at issue is that “Wiggle” and “Levitating” include a rapidly sung descending melody in which notes are repeated.

175. First, rapidly sung melodies (sometimes termed “patter song”) have been a musical building block for centuries and (by way of example) exist in the public domain in operas by Mozart and Rossini and in operettas by Gilbert and Sullivan.

176. Second, the scale degrees in the descending melodies in “Wiggle” and “Levitating” are significantly different. Thus, as defined in *The Harvard Dictionary of Music*, the pitches in the melody notes at issue function in significantly different ways.

177. Third, the descending melody at issue in “Wiggle” has many differences as compared to the melody at issue in “Levitating”.

178. Fourth, descending melodies with repeating notes are common in public domain piano works and popular songs that predate “Wiggle”. This includes, among many others, the numerous versions of “Contestación a La Casa en el Aire” recorded and released starting in 1958 and throughout the 1970s, “El Cafetal – El Caimán” as recorded by Juan Vincente Torrealba and released in 1975, and the 1977-released Bee

Gees hit “Stayin’ Alive”. A wide array of works since “Wiggle” continues to use this common and preexisting musical building block. Taken together and separately, these works do not support that anything in “Wiggle” was copied by “Levitating”: they support instead that “Levitating” was independently created.

179. While “Wiggle” is in a major key, by way of difference, “Levitating” is in a minor key. Thus, the “modality” of “Wiggle” is different from the modality of “Levitating”. Moreover, the chord progressions are significantly different in “Wiggle” as compared to “Levitating”. Therefore, the musical building block descending melodies not only consist of significantly different scale degrees, but those melodies are also heard within significantly different harmonic (chord progressions) and modal (major as opposed to minor keys) contexts in “Wiggle” and “Levitating”.

180. The underlying instrumental music is very different in “Wiggle” and “Levitating”.

181. “Wiggle” and “Levitating” in their entireties are significantly different. Outside of the similar use of a musical building block in the vocal melody in the Verse, the overall structure and the arrangement of elements throughout the songs are significantly different. The vocal melody at issue is only in a portion of the Verses; the vocal melodies in other portions of the Verses and in the entirety of the rest of the songs are significantly different.

182. Upon filtering musical building blocks and commonplace elements found in prior art, only isolated and fragmentary notes remain between “Wiggle” and “Levitating”.

183. The analysis above demonstrates that any similarities between “Wiggle” and “Levitating” are not the result of copying but are instead the result of independent creation.

IV. ANALYSIS OF “DON DIABLO” AND “LEVITATING”

IV. A. Structure/Form

Any Similarity in the Overall Structures Is Commonplace and There Are Significant Structural Differences

184. The charts of the respective structures in “Don Diablo” and “Levitating” presented immediately below include the number of bars in each section as well as the starting time of each section within 1 second of beat 1 and the name of each structural section.

“DON DIABLO”			“LEVITATING”		
STRUCTURAL CHART			STRUCTURAL CHART		
00:00	Introduction	8 bars	00:00	Introduction	4 bars
00:18	Verse 1	10 bars	00:10	Verse 1	8 bars
00:41	Chorus 1	8 bars	00:28	Pre-chorus 1	4 bars
00:58	Verse 2	10 bars	00:38	Chorus 1	8 bars
01:20	Chorus 2	7 bars	00:56	Re-introduction	2 bars
01:36	Bridge	6 bars	01:01	Verse 2	8 bars
01:49	Verse 3	10 bars	01:20	Pre-chorus 2	4 bars
02:11	Chorus 3	8 bars	01:29	Chorus 2	8 bars
02:29	Chorus 4	8 bars	01:48	Post-chorus 1	8 bars
02:47	Outro	25 bars	02:06	Bridge	8 bars
	(ends at 3:47 including fade)		02:25	Pre-chorus 3	4 bars
			02:34	Chorus 3	4 bars
			02:44	Post-chorus 2	8 bars
			03:02	Chorus 4	8 bars
				(ends at 3:28)	

185. As shown in the comparative chart above, “Don Diablo” and “Levitating” both have Introduction, Verse, Chorus, and Bridge sections which are building block

structural elements in popular music. However, there are many structural differences such as:

- The Introduction in “Don Diablo” is 8 bars in duration which is two times longer than the Introduction in “Levitating” which is 4 bars.
- Each Verse in “Don Diablo” is 10 bars in duration, but each Verse in “Levitating” is 8 bars.
- Each Verse in “Don Diablo” is followed by a Chorus, but each Verse in “Levitating” is followed by a Pre-chorus.
- Chorus 1 in “Don Diablo” is followed by Verse 2, but Chorus 1 in “Levitating” is followed by a Re-introduction.
- Chorus 2 in “Don Diablo” is followed by a Bridge, but Chorus 2 in “Levitating” is followed by Post-chorus 1.
- Chorus 3 in “Don Diablo” is followed by Chorus 4, but Chorus 3 in “Levitating” is followed by Post-chorus 2.
- While there are three Pre-choruses in “Levitating”, there is no Pre-chorus at all in “Don Diablo”.
- While there are two Post-choruses in “Levitating”, there is no Post-chorus at all in “Don Diablo”.
- While there is a Re-introduction in “Levitating”, there is no Re-introduction section in “Don Diablo”.
- While there is an Outro (ending) in “Don Diablo”, there is no Outro in “Levitating”.

186. The expression at issue is in portions (not the entirety) of the Verses of “Don Diablo” and “Levitating”. No other sections embody expression at issue between “Don Diablo” and “Levitating”.

The Structures of the Introductions in “Don Diablo” and “Levitating” Are Significantly Different

187. The structures of the Introductions in “Don Diablo” and “Levitating”, which open both songs, are significantly different. The significant differences in the Introductions are shown in Musical Examples 38(a) and (b) below.

188. “Don Diablo” is recorded in the key of B-flat (Bb) major. By way of difference, “Levitating” is recorded in the key of B minor. Thus, the “modality” of “Don Diablo” (which is in a major key) is different from the modality of “Levitating” (which is a minor key). As explained earlier in this report, to facilitate a comparative musicological analysis of the music in “Don Diablo” and “Levitating”, and in keeping with standard musicological practices, the music is transposed to comparable “parallel” and “relative” keys. In the first method, the music in both songs is transposed to the same (“parallel”) pitch center, in which case “Don Diablo” is transposed to the key of C major and “Levitating” is transposed to the key of C minor. In the second, the music is transposed to the same (“relative”) key signature with no sharps or flats, in which case “Don Diablo” is transposed to the key of C major and “Levitating” is transposed to the key of A minor. (As noted above, where space considerations dictate including only the first transposition method in the body of this report, the second method is presented in **Visual Exhibit B.**)

189. In Musical Examples 38(a) and 38(b) below, the Introduction of “Don Diablo” appears on the top staff and the Introduction of “Levitating” is on the bottom staff, transposed respectively in parallel keys and relative keys.

MUSICAL EXAMPLE 38(a)**“Don Diablo” / “Levitating” Introduction (Parallel Keys)**

INTRO 0:00

C C#° G⁷/D G⁷

"Don Diablo" 0:00

Wi - wa__ wi - wa__ wi - wa__ wi - wa__

INTRO 0:00

Cm⁷ Gm⁷ Fm⁷ Cm⁷

"Levitating" 0:00

3 G⁷/D Eb⁺ C/E C/G C/E C⁷/Bb

Wi - wa__ wi - wa__ wi - wa__ wi - wa__ Wi - wa__ wi - wa__

Gm⁷ Fm⁷ Cm⁷

6 F/A Ab⁷/Gb C/G G⁷ C N.C.

wi - wa__ wi - wa__ wi - wa__ wi - wa__ wi - wa Don Di-

MUSICAL EXAMPLE 38(b)**“Don Diablo” / “Levitating” Introduction (Relative Keys)**

INTRO 0:00

C C#° G⁷/D G⁷

"Don Diablo" 0:00

Wi - wa__ wi - wa__ wi - wa__ wi - wa__

INTRO 0:00

Am⁷ Em⁷ Dm⁷ Am⁷

"Levitating" 0:00

3 G⁷/D Eb⁺ C/E C/G C/E C⁷/Bb

Wi - wa__ wi - wa__ wi - wa__ wi - wa__ Wi - wa__ wi - wa__

Em⁷ Dm⁷ Am⁷

6 F/A Ab⁷/Gb C/G G⁷ C N.C.

wi - wa__ wi - wa__ wi - wa__ wi - wa__ wi - wa Don Di-

190. As shown in Musical Examples 38(a) and 38(b) above, the Introduction in “Don Diablo” is 8 bars in duration. By way of difference, the Introduction in “Levitating” is 4 bars. As shown in Musical Example 38(a) and 38(b), the bars on the bottom staff (representing “Levitating”) are empty starting at bar 5 because the Introduction ends at bar 4.

191. The chord progressions are significantly different in the “Don Diablo” and “Levitating” Introductions. The harmonic rhythm in bars 1-7 of “Don Diablo” is a

commonplace two chords per bar. While there are also two chords per bar in “Levitating”, by way of difference, the second chord in bar 2 (Cm7) continues into bar 3 for a total of 4 beats whereas all of the chords in bars 1-7 of “Don Diablo” have a duration of 2 beats. In addition and by way of difference, bar 8 in “Don Diablo” has a single chord but none of the bars in the Introduction of “Levitating” have a single chord.

192. Moreover, while there is a vocal melody in all 8 bars of the Introduction of “Don Diablo” (singing “Wi – wa, wi – wa...”), there is no vocal melody at all and no melody line in “Levitating”. Instead, the Introduction in “Levitating” consists wholly of chords.

193. The top notes of the chords in “Levitating” are significantly different from the vocal melody sung in “Don Diablo”. The intervals between the top notes in the chords in “Levitating” are wholly “stepwise” (i.e., moving from one scale degree to an adjacent scale degree) and they are confined to only two adjacent notes, E-flat and F in parallel keys in Musical Example 38(a) and C and D in relative keys in Musical Example 38(b). By way of difference, in “Don Diablo”, the intervals in the vocal melody include adjacent notes A and G and “leaps” (i.e., skipping over adjacent notes) in bars 4 and 7.

194. The rhythmic flow in the Introductions is completely different in “Don Diablo” and “Levitating”. The rhythmic flow in the entire 4-bar “Levitating” Introduction consists strictly of quarter notes, but “Don Diablo” consists of various and very different note values including dotted eighth notes, sixteenth notes tied to quarter notes, thirty-second notes tied to sixteenth notes, and a half note. Moreover, while there are many “syncopations” (i.e., interruptions of the beat) in the “Don Diablo” Introduction, there are no syncopations at all in the “Levitating” Introduction.

195. In summary, on the basis of my analysis, I found that while there are no significant overall structural similarities between “Don Diablo” and “Levitating”, there are very significant differences in (1) the overall structures and (2) the Introductions which open both songs and precede Verse 1, which contains the music at issue. I found no structural similarities that suggest that any structural practices in “Levitating” were copied from “Don Diablo”.

IV. B. Harmony

The Harmony Is Significantly Different and No Harmonic Similarities Exist

196. As explained above, “Don Diablo” is recorded in the key of B-flat (Bb) major but by way of difference, “Levitating” is recorded in the key of B minor. Thus, the “modality” of “Don Diablo” and “Levitating” is different. As shown below, the chord progressions and the harmonic rhythm in “Don Diablo” and “Levitating” are significantly different.

197. In **Visual Exhibit L** attached to this report, the melody, chords, and lyrics at the beginning of Verse 1 through to the end of Chorus 1 are transcribed in “parallel” keys (with “Don Diablo” in C major and “Levitating” in C minor) followed by “relative” keys (with “Don Diablo” in C major and “Levitating” in A minor). Structural names (e.g., Verse, Chorus) and their respective start times in the “Don Diablo” and “Levitating” sound recordings are in rectangular boxes at the start of each structural section in the comparative transcriptions.

The Chord Progressions in “Don Diablo” and “Levitating” Are Significantly Different

198. The chord progressions in the Verses of “Don Diablo” and “Levitating” (which are the only sections at issue), transcribed in **Visual Exhibit L**, are charted immediately below in “parallel” keys: “Don Diablo” in the key of C major and “Levitating” in the parallel key of C minor.

<u>bar 1</u>	<u>bar 2</u>	<u>bar 3</u>	<u>bar 4</u>
“Don Diablo”: C	G7	(G7)	(G7) C
“Levitating”: Cm7 Gm7	Fm7 Cm7	(Cm7) Gm7	Fm7 Cm7
<u>bar 5</u>	<u>bar 6</u>	<u>bar 7</u>	<u>bar 8</u>
“Don Diablo”: (C)	G7	(G7)	C
“Levitating”: (Cm7) Gm7	Fm7 Cm7	(Cm7) Gm7	Fm7 Cm7

199. As shown in the comparative chord chart immediately above and transcribed (in both “parallel” and “relative” keys) in **Visual Exhibit L**, in bars 1-4, the chord progressions and the overall harmonic contexts are significantly different between “Don Diablo” and “Levitating” because:

- While there is a C (major) chord in “Don Diablo”, there is no “C” chord in “Levitating”.
- While there is a G7 chord in “Don Diablo”, there is no “G7” chord in “Levitating”.
- While there is a Cm7 chord in “Levitating”, there is no Cm7 chord in “Don Diablo”.
- While there is a Gm7 chord in “Levitating”, there is no Gm7 chord in “Don Diablo”.
- While there is an Fm7 chord in “Levitating”, there is no Fm7 chord in “Don Diablo”.

200. The significant harmonic differences specified in the bullets immediately above regarding bars 1-4 of the Verses in “Don Diablo” and “Levitating” continue in bars 5-8 as charted above and as transcribed in **Visual Exhibit L**.

201. The chord progression in the Verse of “Don Diablo” continues in bars 9 and 10 (respectively with G7 and C chords every two beats), but there are no corresponding bars 9-10 in the Verse of “Levitating”: (1) while the Verses in “Don Diablo” are each 10 bars in duration, by way of difference, the Verses in “Levitating” are 8 bars in duration and (2) the G7 and C chords respectively in bars 9 and 10 of “Don Diablo” are different from the chords in “Levitating”.

The Harmonic Rhythm in “Don Diablo” and “Levitating” Is Significantly Different

202. As defined and cited above, harmonic rhythm is the rate of change of chords. As shown in the comparative chord chart above and as transcribed in **Visual**

Exhibit L, the harmonic rhythm in “Don Diablo” and “Levitating” is significantly different because:

- In bar 1, while the harmonic rhythm in “Don Diablo” is one chord per bar, it is two chords per bar in “Levitating”.
- In bar 2, while the harmonic rhythm in “Don Diablo” varies at one chord per bar (in bars 1 and 8), one chord per 2.5 bars (in bars 2-4), one chord per 1.5 bars (in bars 4-5), one chord per 2 bars (in bars 6-7), and two chords per bar (in bars 9-10), the harmonic rhythm is two chords per bar in “Levitating” including chords carrying over from bars 2 to 3, 4 to 5, and 6 to 7.

203. Thus, the harmonic rhythm in Verse 1 is different in “Don Diablo” and “Levitating”.

204. Moreover, as shown in **Visual Exhibit L**, the chord progressions and harmonic rhythm in the subsequent sections of “Don Diablo” and “Levitating” are also significantly different.

205. In summary, on the basis of my analysis, I found that there are no significant harmonic similarities between “Don Diablo” and “Levitating”, but there are very significant harmonic differences. Moreover, I found no musicological evidence that any harmonic expression in “Levitating” was copied from “Don Diablo”.

IV. C. Rhythm

206. The tempo (performance speed) of “Don Diablo” is approximately 108 beats per minute (hereafter, BPM). The tempo of “Levitating” is 103 BPM.

207. “Don Diablo” and “Levitating” are in 4/4 meter, also known as “common time”, which is a commonplace musical building block. Countless musical compositions over centuries and in multiple genres share this building block meter in which there are four quarter beats in each bar.

208. As discussed above in connection with “Wiggle”, the rhythmic similarity between the vocal melodies in a portion of the Verses in “Don Diablo” and “Levitating” is

a centuries-old musical building block, namely, the “patter song” device of syllabically singing rapid, often repeated, notes.³⁴ As noted above, this musical building block has been in common use for more than two centuries and is found in the operas of Mozart (in the second half of the 18th century) and, Rossini (in the first half of the 19th century) to name only two opera composers, and in the operettas of Gilbert and Sullivan in the second half of the 19th century.

209. Moreover, beyond the centuries-old building block of rapid, syllabic singing, as shown in the section on “Melody” below, the melodic similarity between “Don Diablo” and “Levitating” is, as with “Wiggle”, merely a descending scale in which the notes of the scale are repeated, which also is a musical building block. As discussed in the “Prior Art” sections of this report, this musical building block exists in prior art works that were widely available before “Don Diablo” in 1980 (and “Wiggle” in 1979), including public domain instructional works, the popular Latin American song “Contestación”, recorded multiple times starting in 1958 and during the 1970s, and the Bee Gee’s international 1977 disco hit, “Stayin’ Alive”. Furthermore, this use of a musical building block descending scale with repeated notes only occurs in some portions of the Verse sections in “Don Diablo” and “Levitating”. The vocal rhythms that are sung in other portions of the Verse sections and throughout the remainder of “Don Diablo” and “Levitating” are very different.

210. Turning to the instrumental music, there are no notable rhythmic similarities between the drumbeats in “Don Diablo” and “Levitating”, but there are very significant differences as demonstrated in Musical Example 39 below in which the drumbeat in “Don Diablo” is placed over the drumbeat in “Levitating”.

³⁴ See ¶¶ 41-42 and note 18, *supra*.

MUSICAL EXAMPLE 39
“Don Diablo” (Verse) / “Levitating” (Verse)
Drums and Percussion

The musical notation for Musical Example 39 shows two staves. The top staff, labeled "Don Diablo" 0:18, is in 4/4 time and features a congas part (notes on the top line) and a drums part (x's on the middle line). The bottom staff, labeled "Levitating" 0:10, is also in 4/4 time and features a drums part (x's on the middle line and triangles on the bottom line).

211. A “drum legend”, identifying the line or space of the staff on which notes played by specific instruments are notated in Musical Example 39, is below.

DRUM LEGEND

The drum legend shows a musical staff with seven instruments mapped to specific lines or spaces: Kick (bottom line), Snare (middle line), Handclap (middle line), Closed Hi-hat (middle line), Open Hi-hat (top line), Crash Cymbal (top line), and Cowbell (bottom line).

212. As shown in Musical Example 39 above, the only rhythmic similarity in the drumbeats and percussion rhythms in “Don Diablo” and “Levitating” is four quarter beats per bar on the kick (bass) drum, termed a “four-on-the-floor” rhythm, as seen in the lower portion of the staves. This commonplace and basic rhythm pattern was greatly popularized in disco music of the 1970s, before the release of “Don Diablo” (and “Wiggle”). As noted earlier in this report, drum student method books include “four-on-the-floor” kick drum patterns. For instance, in the section on “Disco” in *Funk Drumming*

(1982) by Jim Payne, shown in **Visual Exhibit D**, there are more than two dozen examples of drumbeats with a “four-on-the-floor” kick drum rhythm.

213. Also as shown in Musical Example 39 above, there are many differences in the drumbeats and percussion rhythms between “Don Diablo” and “Levitating” such as:

- The backbeat (beats 2 and 4) is played on the snare in “Levitating”, but there is no backbeat on beats 2 and 4 in “Don Diablo”.
- There are continuous sixteenth notes in the hi hat in “Don Diablo”, but not in “Levitating”.
- There is a recurring six-note pattern in the congas in “Don Diablo”, but that recurring six-note pattern is not in “Levitating”.
- There are off-beat notes on the cowbell in “Levitating”, but not in “Don Diablo”.

The Drumbeat and Percussion Rhythms in “Don Diablo” and “Contestación a La Casa en el Aire” (1958) Are More Similar Than Between “Don Diablo” and “Levitating”

214. As analyzed in the section on “Prior Art” below, “Contestación a la Casa en el Aire”, recorded by Trio La Rosa and released in 1958, was followed by at least eight cover releases in the 1970s, seven of which predate “Wiggle” and “Don Diablo”. The Trio La Rosa performance at <https://www.youtube.com/watch?v=OUNa--uvXhQ> is transcribed herein.

215. In Musical Example 40 below, a portion of the drumbeat in the Verse of “Contestación a La Casa en el Aire” is on the top staff, the drumbeat pattern in “Don Diablo” is on the middle staff, and the drumbeat pattern in “Levitating” is on the lowest staff.

MUSICAL EXAMPLE 40**“Contestación a La Casa en el Aire” / “Don Diablo” / “Levitating”
Drums and Percussion**

The musical notation is presented in three systems, each for a different song, all in 4/4 time. The first system, for "Contestación a la Casa en el Aire" (0:26), features a guiro (represented by a line with a series of 'x' marks) and congas (represented by eighth notes with 'x' marks, some labeled '(slap)'). The second system, for "Don Diablo" (0:18), features congas and drums (represented by eighth notes with 'x' marks). The third system, for "Levitating" (0:10), features drums (represented by eighth notes with 'x' marks). The notation uses a grand staff format with a treble clef and a key signature of one flat (Bb).

216. The percussion elements in “Contestación” are Latin in origin. The instruments used are guiro and congas. Congas are also used in “Don Diablo” but not in “Levitating”. The eighth-note congas pattern in “Contestación” is more similar to the eighth-note hi-hat in “Levitating” than anything in “Don Diablo”. There is no kick or bass drum in “Contestación”, so it does not have the musical building block four-on-the-floor pattern present in “Don Diablo”, “Levitating”, and prior artwork “Stayin’ Alive” (1977).

The Drumbeat and Percussion in “Don Diablo” and Prior Artwork “Stayin’ Alive” (1977)
Is More Similar Than Between “Don Diablo” and “Levitating”

217. As noted above, “Stayin’ Alive”, recorded by the Bee Gees, was released in 1977 as a single from the *Saturday Night Fever* soundtrack. In addition to

incorporating the musical building block at issue in its vocal melody, “Stayin’ Alive” includes a “four-on-the-floor” kick drum pattern throughout the song.

218. In Musical Example 41 below, the drumbeat and percussion in “Stayin’ Alive” are on the top staff, the drumbeat and percussion in “Don Diablo” are on the middle staff, and the drumbeat in “Levitating” is on the lowest staff.

MUSICAL EXAMPLE 41
“Stayin’ Alive” (Chorus) / “Don Diablo” (Verse) / “Levitating” (Verse)
Drums and Percussion

Musical Example 41 displays the drum and percussion parts for three songs, arranged in three systems. Each system is in 4/4 time and consists of two measures.

- System 1: "Stayin' Alive" (0:33)**
 - shaker:** Plays a continuous eighth-note pattern.
 - triangle:** Plays a pattern of eighth notes with rests, creating a syncopated effect.
 - drums:** Features a "four-on-the-floor" kick drum pattern (quarter notes on every beat) with snare and cymbal accents.
- System 2: "Don Diablo" (0:18)**
 - congas:** Plays a pattern of eighth notes with rests.
 - drums:** Features a "four-on-the-floor" kick drum pattern with snare and cymbal accents.
- System 3: "Levitating" (0:10)**
 - drums:** Features a "four-on-the-floor" kick drum pattern with snare and cymbal accents.

219. As shown in Musical Example 41, there is greater similarity between the drumbeat and percussion in “Don Diablo” and “Stayin’ Alive” than the almost non-

existent similarity between “Don Diablo” and “Levitating”. While the only similarity between the drumbeats in “Don Diablo” and “Levitating” is the basic and commonplace “four-on-the-floor” kick drum pattern, in addition to that similarity, “Stayin’ Alive” and “Don Diablo” have continuous sixteenth notes (on a shaker in “Stayin’ Alive” and on the hi hat in “Don Diablo”). Thus, the drumbeats and percussion rhythms are more similar between “Stayin’ Alive” and “Don Diablo” than between “Don Diablo” and “Levitating”. In addition, “Stayin’ Alive” and “Levitating” have backbeats on the snare drum, but “Don Diablo” does not, which is a rhythmic similarity between “Stayin’ Alive” and “Levitating” and a rhythmic difference between “Don Diablo” and “Levitating”. Further, the tempo of “Stayin’ Alive”, 103 BPM, is the same as the 103 BPM tempo of “Levitating”. As explained above, the tempo of “Don Diablo” is faster at approximately 108 BPM.

220. In summary, on the basis of my analysis, I found that there are no significant rhythmic similarities between “Don Diablo” and “Levitating”, but there are significant rhythmic differences in the instrumental music. When combined with my findings regarding structure and harmony, I found that there are no structural, harmonic, or rhythmic similarities, individually or in the aggregate, that suggest that any musical expression in “Levitating” was copied from “Don Diablo”.

IV. D. Melody

221. On the basis of my analysis of the melodies in “Don Diablo” and “Levitating”, and in the context of the melodies found in prior art, I found that there are no significant melodic similarities between these two works. I found ample musicological support that “Levitating” was independently created because the melodic expression in common between “Don Diablo” and “Levitating” was widely available to the writers of both songs before they were released.

The Melodic Similarity at Issue Is a Musical Building Block

222. Similar to the comparison with “Wiggle”, the only melodic similarity at issue in “Don Diablo” and “Levitating” is a musical building block, namely, syllabically (one syllable per note) singing rapid, repeated notes in “patter song” fashion in a descending melody. This sole similarity at issue only occurs in portions of the Verses.

The vocal melodies that are sung in other portions of the Verse sections and throughout the remainder of “Don Diablo” and “Levitating” are very different and do not embody similarities.

223. As discussed above, rapidly sung, patter-style melodies have been a musical building block for centuries and (by way of example) exist in the public domain in operas by Mozart and Rossini and in operettas by Gilbert and Sullivan. They also occur in popular Latin American music, such as with “Contestación a la Casa en el Aire” (“Contestación”) which as discussed featured the same pattern of repeated, patter-style notes descending scale-wise **before** either “Wiggle” or “Don Diablo”. Additionally, just as with the comparison of “Wiggle” and “Levitating”, the scale degrees in the descending melodies in “Don Diablo” and “Levitating” are significantly different. Thus, as defined in *The Harvard Dictionary of Music*, the pitches in the melody notes at issue function in significantly different ways. Finally, as shown above and re-addressed below, descending melodies with repeating notes are commonly found in public domain music works, exercises, and popular songs that predate “Don Diablo”.

224. Moreover, as demonstrated in the section on “Harmony” above, the chord progressions and harmonic rhythms in “Don Diablo” (in a major key) and “Levitating” (in a minor key) are significantly different. No harmonic similarity is shared between “Don Diablo” and “Levitating”. Therefore, the harmonic context of different modalities, and significantly different chord progressions and harmonic rhythms further distance the weak and commonplace melodic similarity at issue.

The Development of the Melodies at Issue Is Significantly Different in “Don Diablo” and “Levitating”

225. As shown in the comparative transcriptions in **Visual Exhibit L** and transcribed and explained below, the development of the melodies at issue in “Don Diablo” and “Levitating” is very different.

226. In “Levitating”, the melody at issue is in bars 1 and 2 of the 8-bar Verse. As discussed above, this 2-bar melody at issue in “Levitating” is almost identically repeated in bars 3-4 (the second phrase) of the Verse in “Levitating”, while the melody

in bars 5 and 6 (the third phrase) of the Verse in “Levitating” is different from the 2-bar melody at issue. Finally, the melody at issue in bars 1-2 in “Levitating” is identically repeated in bars 7-8 (the fourth phrase) of the Verse. Thus, bars 1-2, 3-4, and 7-8 are almost (or in the case of bars 1-2 as compared to bars 7-8, actually) identical within “Levitating”.

227. In “Don Diablo”, as with “Wiggle”, the melody at issue is in bars 1 and 2 of the Verse, although the Verse in “Don Diablo” is 10 bars in length, not 8 bars in length as in “Levitating”. The descending melody in bars 3-4 of “Don Diablo” **starts one note lower** than the descending melody in bars 1 and 2, drops two pickup notes, and adds one note in bar 4. The third melodic phrase is confined to the pickup and melody in only one bar (not two bars), namely in bar 5. By further way of difference to the melody at issue in bars 1-2 within “Don Diablo”, the pickup to the melody that is in bars 7-8 (the fourth melodic phrase) consists of ten (10) notes, not two notes as in the pickup to the melody in bar 1. The melody in bars 9-10 of “Don Diablo” is also different from the melody at issue in bars 1-2. Moreover, while there are three iterations of the 2-bar melody at issue in the Verses of “Levitating” (with changes as noted), there are only two iterations of the 2-bar melody at issue in the Verses of “Don Diablo” (with changes as noted).

228. Thus, as shown in the comparative transcriptions in **Visual Exhibit L** and explained above, the development of the 2-bar melody at issue in the Verse of “Don Diablo” is significantly different from the development of the 2-bar melody at issue in the Verse of “Levitating”. After an initial iteration in bars 1-2, the melodies at issue develop in very different ways in “Don Diablo” as compared to “Levitating”.

Any Melodic Similarity Between “Don Diablo” and “Levitating” Is Insignificant and Is a Musical Building Block

229. In analyzing the melodies at issue within the vocal melodies in the Verses of “Don Diablo” and “Levitating”, the following analysis focuses on the melodic phrases

in bars 1-2 and 3-4 of the Verses. As explained above and shown in **Visual Exhibit L**, the vocal melodies in bars 5-10 of the Verses in “Don Diablo” are not at issue.³⁵

230. As explained earlier in this report, musicologists use scale degrees in the analysis of melodies. There are seven numbered scale degrees in a major or minor scale, and each scale degree has a melodic function. *Again, when comparing two melodies that are respectively in major and minor keys in parallel keys such as C major and C minor, the melodic function of corresponding scale degrees is maintained.*

The Scale Degrees in the Melodies at Issue in “Don Diablo” and “Levitating” Are Significantly Different, and the Melodic Similarity Is Commonplace

231. In Musical Example 42(a) below, bars 1-4 of the Verse melody in “Don Diablo” are on the top staff and bars 1-4 of the Verse melody in “Levitating” are on the bottom staff, transcribed in parallel keys. As noted above, these bars contain the initial two melodic phrases in the respective Verses of each work. Scale degrees have been input above each note. The melodies at issue end differently in bar 4 with an ascent to scale degree 6 (followed by a descent to scale degree 5) in “Don Diablo” but a descent to scale degree 7 (followed by an ascent to scale degree 1) in “Levitating”. Moreover, while the corresponding scale degree 7 in bar 2 is the pitch “B” in “Don Diablo” (because “Don Diablo” is in a major key), scale degree 7 is the pitch “B-flat” (“Bb”) in “Levitating” (which is in a minor key).³⁶

³⁵ Within “Levitating”, insofar as the melody in bars 1-2 is repeated in bars 7-8, the findings regarding the melody in bars 1-2 of “Levitating” also obtain with respect the melody in bars 7-8 of “Levitating”.

³⁶ The two pickup notes at the end of bar 4 in “Don Diablo” are omitted because they are part of the third melodic phrase which is not at issue. By way of difference, there are no pickup notes to the third melodic phrase in “Levitating”.

MUSICAL EXAMPLE 42(a)**"Don Diablo" / "Levitating" – Verse 1, bars 1-4 (Parallel keys)**

"Don Diablo" 0:18

"Levitating" 0:10

The musical notation shows two staves. The top staff is for "Don Diablo" in C major (4/4 time) and the bottom staff is for "Levitating" in A minor (4/4 time). Both staves show the first four bars of the verse. Fingerings are indicated by numbers 1-7 above the notes. A purple dot is present on the 7th note of the first bar in both staves.

232. Musical Example 42(b) below presents the same comparison in the *relative* keys of C major and A minor.

MUSICAL EXAMPLE 42(b)
“Don Diablo” / “Levitating” – Verse 1, bars 1-4 (Relative keys)

"Don Diablo" 0:18

"Levitating" 0:10

233. As can be seen, even when transposed in relative keys there is (1) only **one** corresponding note (on the second half of beat 2 of bar 2) that occupies the same scale degree 7 on different pitches (a “B” pitch in “Don Diablo” but a “G” pitch in “Levitating”) and (2) only **one** corresponding note (on beat 3 of bar 2) with the same “A” pitch with different scale degrees (scale degree 6 in “Don Diablo” but scale degree 1 in “Levitating”). These corresponding notes have been highlighted in **purple** in Musical Example 42(b). Moreover, after the middle of the second bar, there is no similarity of either pitch or scale degree through bar 4. Prior to that, the notes are **different** in scale degree (and thus melodic function) and consist simply of repeated notes on a descending scale, as is common in prior art.

234. The significantly different scale degrees and pitches in the corresponding “Don Diablo” and “Levitating” Verse melodies transcribed in Musical Examples 42(a) and 42(b) above are charted as scale degrees immediately below. The “upbeat” notes before a bar are in italics. As noted above, there is only one corresponding (similar)

scale degree ("7"), but it is different in pitch ("B" as compared with "Bb" in parallel keys, "B" as compared with "G" in relative keys) and thus highlighted in **purple**.

	<u>Bar 1</u>	<u>Bar 2</u>
"Don Diablo":	5 5 3 3 3 3 2 2 2 2 1 1 1 1 7 7 7 7	6 6 6 6 6 6 7 6
"Levitating":	5 5 5 5 4 4 4 4 3 3 3 3 2 2 2 2	1 1 1 1 1 7 1
	<u>Bar 3</u>	<u>Bar 4</u>
"Don Diablo":	2 2 2 2 1 1 1 1 7 7 7 7 6 6 6 6	5 5 5 5 5 5 6 5 5
"Levitating":	1 5 5 5 5 4 4 4 4 3 3 3 3 2 2 2 2	1 1 1 1 7 1

235. As shown above, the melodic similarity is merely a stepwise descending melody in which notes are iterated four times on each scale degree, which is a musical building block that was commonplace prior to "Don Diablo". In Musical Example 43(a) below, the notes and scale degrees from Musical Example 42 are used. However, in Musical Example 43(a), the notes that are different in "Levitating" as compared to corresponding notes in "Don Diablo" are **X**d out.

MUSICAL EXAMPLE 43(a)
"Don Diablo" / "Levitating" – Verse 1, bars 1-4 (Parallel keys)

The musical notation displays two staves. The top staff, labeled '"Don Diablo" 0:18', is in C major (treble clef, 4/4 time) and contains the notes and scale degrees: 5 5 3 3 3 3 2 2 2 2 1 1 1 1 7 7 7 7 6 6 6 6 6 6 7 6. The bottom staff, labeled '"Levitating" 0:10', is in Bb major (treble clef, 4/4 time) and contains the notes and scale degrees: 5 5 5 5 4 4 4 4 3 3 3 3 2 2 2 2 1 1 1 1 7 1 1. Red 'X' marks are placed over the notes in the 'Levitating' staff that differ from the 'Don Diablo' staff: the first four 5s, the 4s, the 3s, the 2s, the first 1, the 7, and the final 1. The 6s and the final 7 in the 'Levitating' staff are not marked with an 'X'.

236. As shown in Musical Example 43(a) above, out of a total of 46 notes in bars 1-4 of Verse 1 of “Levitating”, 45 notes (approximately 98%) are **X**d out because they are different in pitch, scale degree, rhythmic duration, and metric placement. The only corresponding note that is not **X**d out in each song is under the scale degree “7” and highlighted in **purple** because, while scale degree 7 is the same scale degree, the pitch is different: scale degree 7 is the pitch B in “Don Diablo” but scale degree 7 is the pitch B-flat (Bb) in “Levitating”. Indeed, the similarity between the melodies is nothing more than the use of a musical building block that was commonplace before “Don Diablo”, and in which notes in a stepwise descending melody are iterated four times each.

237. Musical Example 43(b) below performs the same exercise in relative keys. Once again, now in relative keys, the similarity between the melodies is nothing more than the use of a musical building block that was commonplace before “Don Diablo”, and in which notes in a stepwise descending melody are iterated four times each.

MUSICAL EXAMPLE 43(b)
“Don Diablo” / “Levitating” – Verse 1, bars 1-4 (Relative keys)

The musical example displays two staves of music in 4/4 time. The top staff, labeled "Don Diablo" 0:18, shows a melody with scale degrees 5 5 3 3 3 3 2 2 2 2 1 1 1 1 7 7 7 7 6 6 6 6 6 6 7 6. The bottom staff, labeled "Levitating" 0:10, shows a melody with scale degrees 5 5 5 5 4 4 4 4 3 3 3 3 2 2 2 2 1 1 1 1 1 7 1 1. The "Levitating" staff has several notes marked with red X's, indicating they are different from the "Don Diablo" staff. The "Levitating" staff also has a purple note marked with a red X, indicating it is the only corresponding note that is not X'd out.

238. As shown in Musical Example 43(b), 21 out of 46 notes in “Levitating” are the same in pitch (but different in scale degree), rhythmic duration, and metric placement as corresponding notes in “Don Diablo”. Thus, even when disregarding the different scale degrees (which are almost completely different) between “Don Diablo” and “Levitating”, (1) approximately 54% of the corresponding notes are still filtered out from “Levitating” and (2) the remaining notes **are merely the musical building block descending scale with repeated notes** that was commonplace before “Don Diablo” and found identically in a Czerny study as shown above and below.

239. In summary, on the basis of my analysis, I found that there are no significant melodic similarities between “Don Diablo” and “Levitating”, but there are significant melodic differences, including in the portions of the songs that are at issue. While there is a melodic similarity between “Don Diablo” and “Levitating”, the melodic similarity is a musical building block that exists in prior art that was widely available before “Don Diablo”, as shown in the “Prior Art” sections of this report both above and below. When combined with my findings regarding structure, harmony, and rhythm, I found that there are no structural, harmonic, rhythmic, or melodic similarities, individually or in the aggregate, that suggest that any musical expression in “Levitating” was copied from “Don Diablo”.

IV. E. Lyrics

The Lyrics in “Don Diablo” and “Levitating” Are Significantly Different

240. On the basis of my analysis, I found that the lyrics in “Don Diablo” and “Levitating” are significantly different. An online English translation of the Spanish lyrics in “Don Diablo”, attached as **Visual Exhibit M**, is available at the following site. <https://lyricstranslate.com/en/don-diablo-mr-devil.html>. The only lyrical similarity is in the patter-style “performance” of different lyrics in a portion of the Verses in “Don Diablo” and “Levitating”.

241. In summary, I found that there are no significant lyrical similarities, but there are significant lyrical differences. Moreover, when combined with my findings regarding structure, harmony, rhythm, and melody, I found that there are no significant

structural, harmonic, rhythmic, melodic, or lyrical similarities, individually or in the aggregate, that suggest that any musical or lyrical expression in “Levitating” was copied from “Don Diablo”.

IV. F. Prior Art

Prior Art Significantly Undermines and Debilitates Plaintiffs’ Claims

242. As with the examination of “Wiggle” and “Levitating” above, on the basis of my musicological research and analysis, it is my opinion that prior art significantly undermines and debilitates Plaintiffs’ claims regarding “Don Diablo” and “Levitating”. The same prior art addressed above offers compelling evidence that the musical elements shared by “Don Diablo” and “Levitating” represent a musical building block found in musical compositions that are in the public domain, in piano studies, and in popular music songs that predate “Don Diablo”. This musicological evidence establishes that the musical sources of any melodic similarity at issue are present in many compositions from the nineteenth and twentieth centuries – including popular works widely circulated in the 1970s before Plaintiffs’ works. Together with the many works that continue to use this basic musical building block, these prior compositions provide very strong musicological support for finding that Plaintiffs cannot monopolize the musical expression that is at issue in “Don Diablo” and “Levitating”, which has been widely used and available for centuries, and strongly suggest that “Levitating” was created independently of “Don Diablo”.

The Musical Elements at Issue Are Found in Latin American Music Before “Don Diablo”

(1) Contestación a La Casa en el Aire

243. As analyzed above, the musical elements at issue are found in the popular Latin American song, “Contestación”, originally released in 1958 with at least eight cover releases in the 1970s, seven of which predate “Wiggle” and “Don Diablo” (see paragraph 80 above). As shown in Musical Example 44 below, there are many more identical corresponding notes between the melody in “Contestación” and the melody at issue in “Levitating” than there are between the melodies at issue in “Don Diablo” and “Levitating” in parallel keys.

MUSICAL EXAMPLE 44**“Don Diablo” / “Contestación” / “Levitating”**

"Don Diablo" 0:18

"Contestación A La Casa En El Aire" 0:26

"Levitating" 0:10

Scale degrees for "Don Diablo": 5 5 3 3 3 3 2 2 2 2 1 1 1 1 7 7 7 7 6 6 6 6 6 6 7 6

Scale degrees for "Contestación A La Casa En El Aire": 5 1 3 5 5 5 5 4 4 4 4 3 3 3 3 2 2 2 2 1 1 1 1 2 1 7 1 2 7 7 2

Scale degrees for "Levitating": 5 5 5 5 4 4 4 4 3 3 3 3 2 2 2 2 1 1 1 1 1 7 1 1

Scale degrees for the second system (continuation of "Levitating"): 3 2 2 2 2 1 1 1 1 7 7 7 7 6 6 6 6 5 5 5 5 5 5 6 5 5

Scale degrees for the third system (continuation of "Levitating"): 4 4 4 4 3 3 3 3 2 2 2 2 1 1 1 1 7 7 7 6 6 1 7 6 5 6 1 3

Scale degrees for the fourth system (continuation of "Levitating"): 5 5 5 5 4 4 4 4 3 3 3 3 2 2 2 2 1 1 1 1 7 1

244. Musical Example 45 below uses the same notes as in Musical Example 44 but highlights (in **red**) the corresponding notes in “Contestación” and “Levitating” that are *identical* in scale degree, pitch, metric placement, and rhythmic duration. Notes that are *identical* in scale degree, pitch, and metric placement but different in rhythmic duration are highlighted in **purple**. Scale degree 3 in “Contestación” is the pitch E while scale degree 3 in “Levitating” is E-flat. The corresponding scale degree 3 notes that are *identical* in rhythmic duration, metric placement, and scale degree but different in pitch, are highlighted in **purple**.

MUSICAL EXAMPLE 45

“Don Diablo” / “Contestación” / “Levitating”

5 5 3 3 3 3 2 2 2 2 1 1 1 1 7 7 7 7 6 6 6 6 6 6 7 6

"Don Diablo" 0:18

5 1 3 5 5 5 5 4 4 4 4 3 3 3 3 2 2 2 2 1 1 1 1 2 1 7 1 2 7 7 2

"Contestación A La Casa En El Aire" 0:26

5 5 5 5 4 4 4 4 3 3 3 3 2 2 2 2 1 1 1 1 1 7 1 1

"Levitating" 0:10

3 2 2 2 2 1 1 1 1 7 7 7 7 6 6 6 6 5 5 5 5 5 5 6 5 5

4 4 4 4 3 3 3 3 2 2 2 2 1 1 1 1 7 7 7 6 6 1 7 6 5 6 1 3

5 5 5 5 4 4 4 4 3 3 3 3 2 2 2 2 1 1 1 1 7 1

245. As shown in Musical Example 45 above, 20 out of a total of 46 notes (approximately 43% of the notes) in “Levitating” are *identical* in scale degree, metric placement, and rhythmic duration to “Contestación”. Even if the 4 notes on scale degree 3 highlighted in **purple** are not counted (because scale degree 3 is E in “Contestación” and Eb in “Levitating”), 16 out of a total of 46 notes (approximately 34% of the notes) in “Levitating” are *identical* in pitch, metric placement, and rhythmic duration to “Contestación”.

246. Additionally, there is a similarity between “Don Diablo” and “Contestación”: bar 3 starts **a step lower** (repeating on scale degree 2 in “Don Diablo” and on scale degree 4 in “Contestación”), continuing the descending melodic pattern. Starting and continuing a step lower in the second melodic phrase in bar 3 as compared with the first

melodic phrase in bar 1 in “Don Diablo” is a similarity between “Contestación” and “Don Diablo” but a difference between “Levitating” and “Don Diablo”.

247. Musical Example 46 below uses the same notes as in Musical Examples 44 and 45. The purpose of Musical Example 46 is to filter out (with **Xs**) the notes in “Levitating” that (1) are not the same as in “Don Diablo” and/or (2) are also in the prior artwork “Contestación”. As shown therein, none of the 46 notes in “Levitating” remain after this filtration process.

MUSICAL EXAMPLE 46

“Don Diablo” / “Contestación” / “Levitating”

The musical example displays three staves of music, each with a time signature of 4/4. The first staff, labeled "Don Diablo" 0:18, shows a sequence of notes with fingerings: 5 5, 3 3 3 3, 2 2 2 2, 1 1 1 1, 7 7 7 7, 6 6 6 6, 6 6 7, 6. The second staff, labeled "Contestación A La Casa En El Aire" 0:26, shows a sequence of notes with fingerings: 5 1 3, 5 5 5 5, 4 4 4 4, 3 3 3 3, 2 2 2 2, 1 1 1 1, 2 1 7 1, 2 7, 7 2. The third staff, labeled "Levitating" 0:10, shows a sequence of notes with fingerings: 5 5 5 5, 4 4 4 4, 3 3 3 3, 2 2 2 2, 1 1 1 1, 7 1, 1. The notes in the "Levitating" staff are marked with red Xs, indicating they are filtered out because they are not the same as in "Don Diablo" and/or are also in "Contestación".

248. As shown in the alternative versions of Musical Examples 44, 45, and 46 in **Visual Exhibit B**, in relative keys, after filtering out notes in “Levitating” that (1) are different from notes in “Don Diablo” and/or (2) are in “Contestación”, 21 out of 46 notes in “Levitating” remain because they are the same in pitch, rhythmic duration, and metric placement (but different in scale degree) as corresponding notes in “Don Diablo”. Thus, even when disregarding the different scale degrees (which are almost completely different) between “Don Diablo” and “Levitating”, (1) approximately 54% of the corresponding notes are still filtered out from “Levitating” and (2) the remaining notes are merely the musical building block descending scale with repeated notes that was commonplace before “Don Diablo”, for example, as demonstrated above and on Track 6 of **Audio Exhibit 1** which pairs the melody at issue in “Don Diablo” with 20 identical notes in the Czerny study Opus 299, No. 22.

249. In summary, “Contestación” shares more identical notes with the melody at issue in “Levitating” than there are between the melodies at issue in “Don Diablo” and “Levitating” in parallel keys and any remaining notes in relative keys are merely a musical building block found identically in a nineteenth-century Czerny work. “Contestación” also shares a similarity with “Don Diablo”, namely beginning the melody in bar 3 a step lower than in bar 1. Consequently, “Contestación” significantly undermines and debilitates Plaintiffs’ claims. The similarity at issue is rapidly repeating notes in a descending scale which is a musical building block that no composer can monopolize.

(2) “El Cafetal – El Caimán”

250. As analyzed above, “El Cafetal – El Caimán” (hereafter “El Cafetal”) is another instrumental Latin American work, recorded by the Venezuelan musician Juan Vincente Torrealba and released in 1975.

251. Analyzing the melodies at issue in “El Cafetal”, “Don Diablo”, and “Levitating” in parallel keys, as shown in Musical Example 47 below, there are many more identical corresponding notes between the melody in “El Cafetal” and the melody at issue in “Levitating” than there are between the melodies at issue in “Don Diablo” and

“Levitating” in parallel keys. In Musical Example 47 below, “Don Diablo” is on the top staff, “El Cafetal” is on the middle staff, and “Levitating” is on the bottom staff.

MUSICAL EXAMPLE 47

“Don Diablo” / “El Cafetal” / “Levitating”

5 5 3 3 3 3 2 2 2 2 1 1 1 1 7 7 7 7 6 6 6 6 6 6 7 6

"Don Diablo" 0:18

5 1 3 5 5 5 5 4 4 4 4 3 3 3 3 2 2 2 2 1 1 1 7 2 7 5 4 5 7 2

"El Cafetal - El Caimán" 0:01

5 5 5 5 4 4 4 4 3 3 3 3 2 2 2 2 1 1 1 1 1 7 1 1

"Levitating" 0:10

3 2 2 2 2 1 1 1 1 7 7 7 7 6 6 6 6 5 5 5 5 5 5 6 5 5

4 4 4 4 3 3 3 3 2 2 2 2 1 1 1 1 7 7 7 5 7 5 4 3 5 1 3

5 5 5 5 4 4 4 4 3 3 3 3 2 2 2 2 1 1 1 1 7 1

252. Musical Example 48 below uses the same notes as in Musical Example 47 but highlights (in **red**) the corresponding notes in “El Cafetal” and “Levitating” that are *identical* in scale degree, pitch, metric placement, and rhythmic duration. Notes that are *identical* in scale degree, pitch, and metric placement but different in rhythmic duration are highlighted in **purple**. Scale degree 3 in “El Cafetal” is the pitch E while scale degree 3 in “Levitating” is E-flat. The corresponding scale degree 3 notes that are

identical in rhythmic duration, metric placement, and scale degree but different in pitch, are highlighted in **purple**.

MUSICAL EXAMPLE 48

“Don Diablo” / “El Cafetal” / “Levitating”

"Don Diablo" 0:18

"El Cafetal - El Caimán" 0:01

"Levitating" 0:10

253. As shown in Musical Example 48 above, 19 out of a total of 46 notes (approximately 41% of the notes) in “Levitating” are *identical* in scale degree, metric placement, and rhythmic duration to “El Cafetal”. Even if the 4 notes on scale degree 3 highlighted in **purple** are not counted because the pitch in “El Cafetal” is E while in “Levitating” the pitch is Eb, 15 out of a total of 46 notes (approximately 32% of the notes) in “Levitating” are *identical* in pitch, metric placement, and rhythmic duration to “El Cafetal”.

254. Additionally, there is a similarity between “Don Diablo” and “El Cafetal”: bar 3 starts **a step lower** (repeating on scale degree 2 in “Don Diablo” and on scale degree 4 in “El Cafetal”), continuing the descending melodic pattern. Starting and continuing a step lower in the second melodic phrase in bar 3 as compared with the first melodic phrase in bar 1 in “Don Diablo” is a difference between “Levitating” and “Don Diablo” but is an identity between “El Cafetal” and “Don Diablo”.

255. Musical Example 49 below uses the same notes as in Musical Examples 47 and 48. The purpose of Musical Example 49 is to filter out (with **Xs**) the notes in “Levitating” that (1) are not the same as in “Don Diablo” and/or (2) are also in the prior artwork “El Cafetal”. As shown therein, none of the 46 notes in “Levitating” remain after this filtration process.³⁷

³⁷ As shown in the alternate version of Musical Examples 47 and 49 in **Visual Exhibit B**, in relative keys, after filtering out notes in “Levitating” that (1) are different from notes in “Don Diablo” and/or (2) are in “El Cafetal”, 21 out of 46 notes in “Levitating” remain because they are the same in pitch, rhythmic duration, and metric placement (but different in scale degree) as corresponding notes in “Don Diablo”. Thus, even when disregarding the different scale degrees (which are almost completely different) between “Don Diablo” and “Levitating”, (1) approximately 54% of the corresponding notes are still filtered out from “Levitating” and (2) the remaining notes are merely the musical building block descending scale with repeated notes that was commonplace before “Don Diablo” and in which 20 notes are identical in a nineteenth-century Czerny study as demonstrated above and on Track 6 of **Audio Exhibit 1**.

MUSICAL EXAMPLE 49**“Don Diablo” / “El Cafetal” / “Levitating”**

The image displays three musical staves, each representing a different song. The first staff is for "Don Diablo" (0:18), the second for "El Cafetal - El Caimán" (0:01), and the third for "Levitating" (0:10). Each staff shows a melody in 4/4 time with fingerings indicated above the notes. The "Levitating" staff has several notes marked with red X's, indicating a specific comparison point.

"Don Diablo" 0:18

Fingerings: 5 5 3 3 3 3 2 2 2 2 1 1 1 1 7 7 7 7 6 6 6 6 6 7 6

"El Cafetal - El Caimán" 0:01

Fingerings: 5 1 3 5 5 5 5 4 4 4 4 3 3 3 3 2 2 2 2 1 1 1 7 2 7 5 4 5 7 2

"Levitating" 0:10

Fingerings: 5 5 5 5 4 4 4 4 3 3 3 3 2 2 2 2 1 1 1 1 1 7 1 1

Notes marked with red X's in "Levitating": 5 5 5 5 4 4 4 4 3 3 3 3 2 2 2 2 1 1 1 1 1 7 1 1

256. In summary, in parallel keys, “El Cafetal” shares more identical notes with the melody at issue in “Levitating” than there are between the melodies at issue in “Don Diablo” and “Levitating”. “El Cafetal” also shares a similarity with “Don Diablo”, namely beginning the melody in bar 3 a step lower than in bar 1. Consequently, “El Cafetal” significantly undermines and debilitates Plaintiffs’ claims. The similarity at issue is repeating notes in a descending scale which is a musical building block that no composer can monopolize. As discussed above, this building block was popular in Latin American music, and beyond “Contestación” and “El Cafetal” is found in other works of the period prior to “Don Diablo”, such as “Puedes Marcharte”, released in several recorded versions between 1971 and 1973. See e.g., <https://www.youtube.com/watch?v=J5W-JSKcXik&t=18s>.

Many Other Works of Prior Art Contain the Same Musical Building Blocks

(3a) School of Fluency, Opus 299, #22, bars 5-8

257. As discussed above, study #22 from Carl Czerny's 19th century work of piano studies, *Schule Der Geläufigkeit* (*School of Fluency*), Opus 299, excerpted in **Visual Exhibit E**, features rapid sixteenth notes in which each note is iterated four times and moves stepwise to adjacent notes. As shown in Musical Example 50 below, there are more identical notes between bars 5-8 of Czerny's study and the melody at issue in "Don Diablo" than there are between the melodies at issue in "Don Diablo" and "Levitating". In the example below, the Czerny study #22 is on the top staff, "Don Diablo" is on the middle staff, and "Levitating" is on the bottom staff.

MUSICAL EXAMPLE 50

Czerny, Op. 299, No. 22 bars 5-8 / "Don Diablo" / "Levitating"

Musical Example 50 displays three musical staves, each with fingerings indicated above the notes. The top staff is labeled "Czerny Op. 299, No. 22 bars 5-8" and shows a sequence of notes with fingerings: 3 3 3 3 2 2 2 2 1 1 1 1 7 7 7 7 6 6 6 6 5 5 5 5 4 4 4 4 3 3 3 3. The middle staff is labeled "'Don Diablo' 0:18" and shows a sequence of notes with fingerings: 5 5 3 3 3 3 2 2 2 2 1 1 1 1 7 7 7 7 6 6 6 6 6 6 7 6. The bottom staff is labeled "'Levitating' 0:10" and shows a sequence of notes with fingerings: 5 5 5 5 4 4 4 4 3 3 3 3 2 2 2 2 1 1 1 1 7 1 1. The bottom staff also includes a final measure with a 3 and a 2, and a final measure with a 1 and a 2.

258. Musical Example 51 below uses the same notes as in Musical Example 50 but highlights in **red** the corresponding notes in Czerny and “Don Diablo” with *identical* scale degree, pitch, metric placement, and rhythmic duration.

MUSICAL EXAMPLE 51

Czerny, Op. 299, No. 22 bars 5-8 / “Don Diablo” / “Levitating”

Musical Example 51 displays three musical staves, each with a 4/4 time signature. The first staff is labeled "Czerny Op. 299, No. 22 bars 5-8". The second staff is labeled "'Don Diablo' 0:18". The third staff is labeled "'Levitating' 0:10". Each staff contains a sequence of notes with corresponding scale degrees written above them. Red highlights indicate identical notes across the three pieces. The notes and scale degrees for each staff are as follows:

- Czerny Op. 299, No. 22 bars 5-8:** 3 3 3 3 2 2 2 2 1 1 1 1 7 7 7 7 6 6 6 6 5 5 5 5 4 4 4 4 3 3 3 3
- "Don Diablo" 0:18:** 5 5 3 3 3 3 2 2 2 2 1 1 1 1 7 7 7 7 6 6 6 6 6 6 7 6
- "Levitating" 0:10:** 5 5 5 5 4 4 4 4 3 3 3 3 2 2 2 2 1 1 1 1 1 7 1 1

The notes are written on a treble clef staff with a key signature of one flat (B-flat). The notes are: G4, A4, Bb4, C5, D5, E5, F5, G5, A5, Bb5, C6, D6, E6, F6, G6, A6, Bb6, C7, D7, E7, F7, G7, A7, Bb7, C8, D8, E8, F8, G8, A8, Bb8, C9, D9, E9, F9, G9, A9, Bb9, C10, D10, E10, F10, G10, A10, Bb10, C11, D11, E11, F11, G11, A11, Bb11, C12, D12, E12, F12, G12, A12, Bb12, C13, D13, E13, F13, G13, A13, Bb13, C14, D14, E14, F14, G14, A14, Bb14, C15, D15, E15, F15, G15, A15, Bb15, C16, D16, E16, F16, G16, A16, Bb16, C17, D17, E17, F17, G17, A17, Bb17, C18, D18, E18, F18, G18, A18, Bb18, C19, D19, E19, F19, G19, A19, Bb19, C20, D20, E20, F20, G20, A20, Bb20, C21, D21, E21, F21, G21, A21, Bb21, C22, D22, E22, F22, G22, A22, Bb22, C23, D23, E23, F23, G23, A23, Bb23, C24, D24, E24, F24, G24, A24, Bb24, C25, D25, E25, F25, G25, A25, Bb25, C26, D26, E26, F26, G26, A26, Bb26, C27, D27, E27, F27, G27, A27, Bb27, C28, D28, E28, F28, G28, A28, Bb28, C29, D29, E29, F29, G29, A29, Bb29, C30, D30, E30, F30, G30, A30, Bb30, C31, D31, E31, F31, G31, A31, Bb31, C32, D32, E32, F32, G32, A32, Bb32, C33, D33, E33, F33, G33, A33, Bb33, C34, D34, E34, F34, G34, A34, Bb34, C35, D35, E35, F35, G35, A35, Bb35, C36, D36, E36, F36, G36, A36, Bb36, C37, D37, E37, F37, G37, A37, Bb37, C38, D38, E38, F38, G38, A38, Bb38, C39, D39, E39, F39, G39, A39, Bb39, C40, D40, E40, F40, G40, A40, Bb40, C41, D41, E41, F41, G41, A41, Bb41, C42, D42, E42, F42, G42, A42, Bb42, C43, D43, E43, F43, G43, A43, Bb43, C44, D44, E44, F44, G44, A44, Bb44, C45, D45, E45, F45, G45, A45, Bb45, C46, D46, E46, F46, G46, A46, Bb46, C47, D47, E47, F47, G47, A47, Bb47, C48, D48, E48, F48, G48, A48, Bb48, C49, D49, E49, F49, G49, A49, Bb49, C50, D50, E50, F50, G50, A50, Bb50, C51, D51, E51, F51, G51, A51, Bb51, C52, D52, E52, F52, G52, A52, Bb52, C53, D53, E53, F53, G53, A53, Bb53, C54, D54, E54, F54, G54, A54, Bb54, C55, D55, E55, F55, G55, A55, Bb55, C56, D56, E56, F56, G56, A56, Bb56, C57, D57, E57, F57, G57, A57, Bb57, C58, D58, E58, F58, G58, A58, Bb58, C59, D59, E59, F59, G59, A59, Bb59, C60, D60, E60, F60, G60, A60, Bb60, C61, D61, E61, F61, G61, A61, Bb61, C62, D62, E62, F62, G62, A62, Bb62, C63, D63, E63, F63, G63, A63, Bb63, C64, D64, E64, F64, G64, A64, Bb64, C65, D65, E65, F65, G65, A65, Bb65, C66, D66, E66, F66, G66, A66, Bb66, C67, D67, E67, F67, G67, A67, Bb67, C68, D68, E68, F68, G68, A68, Bb68, C69, D69, E69, F69, G69, A69, Bb69, C70, D70, E70, F70, G70, A70, Bb70, C71, D71, E71, F71, G71, A71, Bb71, C72, D72, E72, F72, G72, A72, Bb72, C73, D73, E73, F73, G73, A73, Bb73, C74, D74, E74, F74, G74, A74, Bb74, C75, D75, E75, F75, G75, A75, Bb75, C76, D76, E76, F76, G76, A76, Bb76, C77, D77, E77, F77, G77, A77, Bb77, C78, D78, E78, F78, G78, A78, Bb78, C79, D79, E79, F79, G79, A79, Bb79, C80, D80, E80, F80, G80, A80, Bb80, C81, D81, E81, F81, G81, A81, Bb81, C82, D82, E82, F82, G82, A82, Bb82, C83, D83, E83, F83, G83, A83, Bb83, C84, D84, E84, F84, G84, A84, Bb84, C85, D85, E85, F85, G85, A85, Bb85, C86, D86, E86, F86, G86, A86, Bb86, C87, D87, E87, F87, G87, A87, Bb87, C88, D88, E88, F88, G88, A88, Bb88, C89, D89, E89, F89, G89, A89, Bb89, C90, D90, E90, F90, G90, A90, Bb90, C91, D91, E91, F91, G91, A91, Bb91, C92, D92, E92, F92, G92, A92, Bb92, C93, D93, E93, F93, G93, A93, Bb93, C94, D94, E94, F94, G94, A94, Bb94, C95, D95, E95, F95, G95, A95, Bb95, C96, D96, E96, F96, G96, A96, Bb96, C97, D97, E97, F97, G97, A97, Bb97, C98, D98, E98, F98, G98, A98, Bb98, C99, D99, E99, F99, G99, A99, Bb99, C100, D100, E100, F100, G100, A100, Bb100, C101, D101, E101, F101, G101, A101, Bb101, C102, D102, E102, F102, G102, A102, Bb102, C103, D103, E103, F103, G103, A103, Bb103, C104, D104, E104, F104, G104, A104, Bb104, C105, D105, E105, F105, G105, A105, Bb105, C106, D106, E106, F106, G106, A106, Bb106, C107, D107, E107, F107, G107, A107, Bb107, C108, D108, E108, F108, G108, A108, Bb108, C109, D109, E109, F109, G109, A109, Bb109, C110, D110, E110, F110, G110, A110, Bb110, C111, D111, E111, F111, G111, A111, Bb111, C112, D112, E112, F112, G112, A112, Bb112, C113, D113, E113, F113, G113, A113, Bb113, C114, D114, E114, F114, G114, A114, Bb114, C115, D115, E115, F115, G115, A115, Bb115, C116, D116, E116, F116, G116, A116, Bb116, C117, D117, E117, F117, G117, A117, Bb117, C118, D118, E118, F118, G118, A118, Bb118, C119, D119, E119, F119, G119, A119, Bb119, C120, D120, E120, F120, G120, A120, Bb120, C121, D121, E121, F121, G121, A121, Bb121, C122, D122, E122, F122, G122, A122, Bb122, C123, D123, E123, F123, G123, A123, Bb123, C124, D124, E124, F124, G124, A124, Bb124, C125, D125, E125, F125, G125, A125, Bb125, C126, D126, E126, F126, G126, A126, Bb126, C127, D127, E127, F127, G127, A127, Bb127, C128, D128, E128, F128, G128, A128, Bb128, C129, D129, E129, F129, G129, A129, Bb129, C130, D130, E130, F130, G130, A130, Bb130, C131, D131, E131, F131, G131, A131, Bb131, C132, D132, E132, F132, G132, A132, Bb132, C133, D133, E133, F133, G133, A133, Bb133, C134, D134, E134, F134, G134, A134, Bb134, C135, D135, E135, F135, G135, A135, Bb135, C136, D136, E136, F136, G136, A136, 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G206, A206, Bb206, C207, D207, E207, F207, G207, A207, Bb207, C208, D208, E208, F208, G208, A208, Bb208, C209, D209, E209, F209, G209, A209, Bb209, C210, D210, E210, F210, G210, A210, Bb210, C211, D211, E211, F211, G211, A211, Bb211, C212, D212, E212, F212, G212, A212, Bb212, C213, D213, E213, F213, G213, A213, Bb213, C214, D214, E214, F214, G214, A214, Bb214, C215, D215, E215, F215, G215, A215, Bb215, C216, D216, E216, F216, G216, A216, Bb216, C217, D217, E217, F217, G217, A217, Bb217, C218, D218, E218, F218, G218, A218, Bb218, C219, D219, E219, F219, G219, A219, Bb219, C220, D220, E220, F220, G220, A220, Bb220, C221, D221, E221, F221, G221, A221, Bb221, C222, D222, E222, F222, G222, A222, Bb222, C223, D223, E223, F223, G223, A223, Bb223, C224, D224, E224, F224, G224, A224, Bb224, C225, D225, E225, F225, G225, A225, Bb225, C226, D226, E226, F226, G226, A226, Bb226, C227, D227, E227, F227, G227, A227, Bb227, C228, D228, E228, F228, G228, A228, Bb228, C229, D229, E229, F229, G229, A229, Bb229, C230, D230, E230, F230, G230, A230, Bb230, C231, D231, E231, F231, G231, A231, Bb231, C232, D232, E232, F232, G232, A232, Bb232, C233, D233, E233, F233, G233, A233, Bb233, C234, D234, E234, F234, G234, A234, Bb234, C235, D235, E235, F235, G235, A235, Bb235, C236, D236, E236, F236, G236, A236, Bb236, C237, D237, E237, F237, G237, A237, Bb237, C238, D238, E238, F238, G238, A238, Bb238, C239, D239, E239, F239, G239, A239, Bb239, C240, D240, E240, F240, G240, A240, Bb240, C241, D241, E241, F241, G241, A241, Bb241, C242, D242, E242, F242, G242, A242, Bb242, C243, D243, E243, F243, G243, A243, Bb243, C244, D244, E244, F244, G244, A244, Bb244, C245, D245, E245, F245, G245, A245, Bb245, C246, D246, E246, F246, G246, A246, Bb246, C247, D247, E247, F247, G247, A247, Bb247, C248, D248, E248, F248, G248, A248, Bb248, C249, D249, E249, F249, G249, A249, Bb249, C250, D250, E250, F250, G250, A250, Bb250, C251, D251, E251, F251, G251, A251, Bb251, C252, D252, E252, F252, G252, A252, Bb252, 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G299, A299, Bb299, C300, D300, E300, F300, G300, A300, Bb300, C301, D301, E301, F301, G301, A301, Bb301, C302, D302, E302, F302, G302, A302, Bb302, C303, D303, E303, F303, G303, A303, Bb303, C304, D304, E304, F304, G304, A304, Bb304, C305, D305, E305, F305, G305, A305, Bb305, C306, D306, E306, F306, G306, A306, Bb306, C307, D307, E307, F307, G307, A307, Bb307, C308, D308, E308, F308, G308, A308, Bb308, C309, D309, E309, F309, G309, A309, Bb309, C310, D310, E310, F310, G310, A310, Bb310, C311, D311, E311, F311, G311, A311, Bb311, C312, D312, E312, F312, G312, A312, Bb312, C313, D313, E313, F313, G313, A313, Bb313, C314, D314, E314, F314, G314, A314, Bb314, C315, D315, E315, F315, G315, A315, Bb315, C316, D316, E316, F316, G316, A316, Bb316, C317, D317, E317, F317, G317, A317, Bb317, C318, D318, E318, F318, G318, A318, Bb318, C319, D319, E319, F319, G319, A319, Bb319, C320, D320, E320, F320, G320, A320, Bb320, C321, D321, E321, F321, G321, A321, Bb321, C322, D322, E322, F322, G322, A322, Bb322, C323, D323, E323, F323, G323, A323, Bb323, C324, D324, E324, F324, G324, A324, Bb324, C325, D325, E325, F325, G325, A325, Bb325, C326, D326, E326, F326, G326, A326, Bb326, C327, D327, E327, F327, G327, A327, Bb327, C328, D328, E328, F328, G328, A328, Bb328, C329, D329, E329, F329, G329, A329, Bb329, C330, D330, E330, F330, G330, A330, Bb330, C331, D331, E331, F331, G331, A331, Bb331, C332, D332, E332, F332, G332, A332, Bb332, C333, D333, E333, F333, G333, A333, Bb333, C334, D334, E334, F334, G334, A334, Bb334, C335, D335, E335, F335, G335, A335, Bb335, C336, D336, E336, F336, G336, A336, Bb336, C337, D337, E337, F337, G337, A337, Bb337, C338, D338, E338, F338, G338, A338, Bb338, C339, D339, E339, F339, G339, A339, Bb339, C340, D340, E340, F340, G340, A340, Bb340, C341, D341, E341, F341, G341, A341, Bb341, C342, D342, E342, F342, G342, A342, Bb342, C343, D343, E343, F343, G343, A343, Bb343, C344, D344, E344, F344, G344, A344, Bb344, C345, D345, E345, F345, G345, A345, Bb345, C346, D346, E346, F346, G346, A346, Bb346, C347,

260. Musical Example 52 below uses the same notes as in Musical Examples 50 and 51. The purpose of Musical Example 52 is to filter out (with **Xs**) the notes in “Levitating” that (1) are not the same as in “Don Diablo” and/or (2) are also in the prior artwork by Czerny. Only one note out of 46 notes in “Levitating” remains because it is the same in scale degree, rhythmic duration, and metric placement as compared with a single note in “Don Diablo”. However, that corresponding note is highlighted in **purple** because, as noted above, while the corresponding note is on scale degree “7”, the pitch is different: scale degree 7 is a “B” pitch in “Don Diablo” but it is a “Bb” pitch in “Levitating”.

MUSICAL EXAMPLE 52**Czerny, Op. 299, No. 22 bars 5-8 / “Don Diablo” / “Levitating”**

The image displays three staves of musical notation in 4/4 time, each with fingerings indicated by numbers 1-7 above the notes. The first staff is for Czerny, Op. 299, No. 22 bars 5-8, in C major. The second staff is for "Don Diablo" (0:18), also in C major. The third staff is for "Levitating" (0:10), in B-flat major. The "Levitating" staff contains red 'X' marks over the first 15 measures, indicating a comparison or similarity with the other two pieces. The notation shows a clear melodic similarity between the three pieces, particularly in the first 5 measures.

261. The obvious similarities between the melodies at issue in “Don Diablo” and the Czerny piano study #22 are demonstrated on Track 6 of **Audio Exhibit 1** attached to this report. Therein, using the transcriptions of “Don Diablo” and Czerny in Musical Example 50 above, starting with bar 1 (without the pickup notes before bar 1), the opening 5 beats of the melodies at issue are paired using “MIDI files” that identically represent the transcriptions above as explained earlier in this report. This comparative audio track demonstrates the musical building block similarity between the melodies at issue of the Czerny study and “Don Diablo” as follows:

Track 6 places side-by-side, the melody in the Czerny study starting on an E pitch followed by the melody in “Don Diablo” starting on an E pitch. This pairing is presented four times on Track 6 of **Audio Exhibit 1**. As clearly heard on Track 6, the 20-note melodies in the nineteenth century Czerny study and “Don Diablo” are **identical**.

262. To return to the question of any similarity between “Don Diablo” and “Levitating”, as shown in the alternate versions of Musical Examples 50 and 52 in **Visual Exhibit B**, even when compared in “relative” keys, after the filtration process, only one note out of 46 notes in “Levitating” is the same in pitch, rhythmic duration, and metric placement (but different in scale degree) as compared with “Don Diablo”, namely on the pitch “A” on beat 3 in bar 2.

263. Thus, whether compared in “parallel” keys, as above, or in “relative” keys as in **Visual Exhibit B**, bars 5-8 of Czerny piano study #22 undermine a musicological claim that the musical building block melodic element that is shared by “Don Diablo” and “Levitating” can be monopolized by Plaintiffs.

(3b) School of Fluency, Opus 299, #22, bars 9-12

264. Staying with study #22 in Czerny’s Opus 299 but now comparing bars 9-12 therein to the melodies at issue in “Don Diablo” and “Levitating”, as shown in Musical Example 53 below, there are many more identical corresponding notes between the melody in bars 9-12 of Czerny’s study and the melody at issue in “Levitating” than there are between the melodies at issue in “Don Diablo” and “Levitating” in parallel keys.

MUSICAL EXAMPLE 53

"Don Diablo" / Czerny, Op. 299, No. 22 bars 9-12 / "Levitating"

The musical notation for Musical Example 53 consists of three staves, each with a treble clef and a 4/4 time signature. The first staff, labeled "Don Diablo" 0:18, shows a sequence of notes with fingerings: 5 5, 3 3 3 3, 2 2 2 2, 1 1 1 1, 7 7 7 7, 6 6 6 6, 6 6 7, 6. The second staff, labeled Czerny Op. 299, No. 22 bars 9-12, shows a sequence of notes with fingerings: 5 5 5 5, 4 4 4 4, 3 3 3 3, 2 2 2 2, 1 1 1 1, 1 1 1 1, 2 2 2 2, 3 3 3 3. The third staff, labeled "Levitating" 0:10, shows a sequence of notes with fingerings: 5 5 5 5, 4 4 4 4, 3 3 3 3, 2 2 2 2, 1 1 1 1, 7, 1, 1. The "Levitating" staff has a key signature change to E-flat major after the first measure.

265. Musical Example 54 below uses the same notes as in Musical Example 53 but highlights (in **red**) the corresponding notes in Czerny and "Levitating" that are *identical* in scale degree, pitch, metric placement, and rhythmic duration. Scale degree 3 in Czerny is the pitch E while scale degree 3 in "Levitating" is E-flat. The corresponding scale degree 3 notes that are *identical* in rhythmic duration, metric placement, and scale degree but different in pitch, are highlighted in **purple**.

MUSICAL EXAMPLE 54

“Don Diablo” / Czerny, Op. 299, No. 22 bars 9-12 / “Levitating”

The image displays three musical staves in 4/4 time, comparing the melodic lines of "Don Diablo", Czerny's Op. 299 No. 22 (bars 9-12), and "Levitating".

- Staff 1: "Don Diablo" (0:18)** - Treble clef, 4/4 time. Notes: G4, A4, B4, C5, D5, E5, F5, G5, A5, B5, C6, D6, E6, F6, G6, A6, B6, C7. Fingerings: 5 5, 3 3 3 3, 2 2 2 2, 1 1 1 1, 7 7 7 7, 6 6 6 6, 6 6 7, 6.
- Staff 2: Czerny Op. 299, No. 22 bars 9-12** - Treble clef, 4/4 time. Notes: G4, A4, B4, C5, D5, E5, F5, G5, A5, B5, C6, D6, E6, F6, G6, A6, B6, C7. Fingerings: 5 5 5 5, 4 4 4 4, 3 3 3 3, 2 2 2 2, 1 1 1 1, 1 1 1 1, 2 2 2 2, 3 3 3 3.
- Staff 3: "Levitating" (0:10)** - Treble clef, 4/4 time. Notes: G4, A4, B4, C5, D5, E5, F5, G5, A5, B5, C6, D6, E6, F6, G6, A6, B6, C7. Fingerings: 5 5 5 5, 4 4 4 4, 3 3 3 3, 2 2 2 2, 1 1 1 1, 1, 7, 1, 1. Notes G4, A4, B4, C5, D5, E5, F5, G5, A5, B5, C6, D6, E6, F6, G6, A6, B6, C7 are highlighted in red. Notes G4, A4, B4, C5, D5, E5, F5, G5, A5, B5, C6, D6, E6, F6, G6, A6, B6, C7 are highlighted in purple.

266. As shown in Musical Example 54 above, 38 out of a total of 46 notes (approximately 82% of the notes) in “Levitating” are *identical* in scale degree, metric placement, and rhythmic duration to Czerny. Even if the 8 notes on scale degree 3 highlighted in **purple** are not counted (because scale degree 3 is E in Czerny but Eb in “Levitating”), 30 out of a total of 46 notes (approximately 65% of the notes) in “Levitating” are *identical* in pitch, scale degree, metric placement, and rhythmic duration to Czerny. Moreover, the similarity between the melody in the Czerny study and the melody at issue in “Levitating” is far greater than any melodic similarity between “Don Diablo” and “Levitating”.

267. Moreover, within both the Czerny study and “Levitating”, the descending scale in bar 1 is identically repeated in bar 3: the descent starts on a repeating scale

degree 5 and continues identically through the respective bars 1 and 3. However, as shown in Musical Example 54 above and by way of difference, in “Don Diablo” the descending melody in bar 3 **starts a step lower** (on a repeating scale degree 2) as compared with the descending melody in bar 1 which starts on a repeating scale degree 3. Starting and continuing a step lower in the second melodic phrase in bar 3 as compared with the first melodic phrase in bar 1 in “Don Diablo” is a difference between “Levitating” and “Don Diablo” while starting both the first and second melodic phrases on the same step is an identity between this Czerny study and “Levitating”.

268. Musical Example 55 below uses the same notes as in Musical Examples 53 and 54. The purpose of Musical Example 55 is to filter out (with **Xs**) the notes in “Levitating” that (1) are not the same as in “Don Diablo” and/or (2) are also in the prior artwork by Czerny. As shown therein, only one note out of 46 notes in “Levitating” (on scale degree 7 highlighted in **purple**) remains after this filtration process and that note, although the same in scale degree, rhythmic duration, and metric placement, is different in pitch as compared with “Don Diablo”.³⁸

³⁸ As shown in the alternate versions of Musical Examples 53 and 55 in **Visual Exhibit B**, using relative keys, after filtering out notes in “Levitating” that (1) are different from notes in “Don Diablo” and/or (2) are in Czerny, 21 out of 46 notes in “Levitating” remain because they are the same in pitch, rhythmic duration, and metric placement (but different in scale degree) as corresponding notes in “Don Diablo”. Thus, even when disregarding the different scale degrees (which are almost completely different) between “Don Diablo” and “Levitating”, (1) approximately 54% of the corresponding notes are still filtered out from “Levitating” and (2) the remaining notes are merely the musical building block descending scale with repeated notes that was commonplace before “Don Diablo” and found in the Czerny study as demonstrated above and on Track 6 of **Audio Exhibit 1**.

MUSICAL EXAMPLE 55**“Don Diablo” / Czerny, Op. 299, No. 22 bars 9-12 / “Levitating”**

The musical notation displays three staves. The first staff, labeled "Don Diablo" 0:18, is in 4/4 time and shows a descending scale with fingerings: 5 5, 3 3 3 3, 2 2 2 2, 1 1 1 1, 7 7 7 7, 6 6 6 6, 6 6 7, 6. The second staff, labeled Czerny Op. 299, No. 22 bars 9-12, is in 4/4 time and shows a descending scale with fingerings: 5 5 5 5, 4 4 4 4, 3 3 3 3, 2 2 2 2, 1 1 1 1, 1 1 1 1, 2 2 2 2, 3 3 3 3. The third staff, labeled "Levitating" 0:10, is in 4/4 time and shows a descending scale with fingerings: 5 5 5 5, 4 4 4 4, 3 3 3 3, 2 2 2 2, 1 1 1 1, 7, 1, 1. Red 'X' marks are placed over the notes in the "Levitating" staff that are identical to the notes in the other two staves, indicating a high degree of similarity in the descending scale.

269. In summary, whereas bars 5-8 in the Czerny piano study #22 share more identical notes with the melody at issue in “Don Diablo” than are shared between “Don Diablo” and “Levitating” in parallel keys, bars 9-12 of Czerny’s study share more identical notes with the melody at issue in “Levitating” than there are between the melodies at issue in “Don Diablo” and “Levitating” in parallel keys. Consequently, the Czerny piano study #22 significantly undermines and debilitates Plaintiffs’ claims. The similarity at issue is repeating notes in a descending scale which is a musical building block that no composer can monopolize.

(4) Etudes for the Left Hand, #15, bars 13-16

270. Study #15 of Czerny's other work discussed in the prior section of this report, *Etudes for the Left Hand*, Opus 718, excerpted in **Visual Exhibit F**, equally prefigures any similarity between "Don Diablo" and "Levitating" through its use of descending sixteenth notes that are iterated four times. As shown in Musical Example 56 below, starting on beat 4 of bar 1 (on scale degrees 5 5 5 5) in the Czerny study and on beat 1 in bar 1 of "Levitating" (on scale degrees 5 5 5 5), there are far more identical notes between bars 1-2 of Czerny's study and bars 1-2 of "Levitating" than between "Don Diablo" and "Levitating". Insofar as bars 3-4 of "Levitating" are, except for two notes including the upbeat note to bar 3, identical to bars 1-2 of "Levitating", the melodic similarities between bars 1-2 of "Levitating" and Czerny continue in bars 3-4 of "Levitating". On the other hand, the expression in bars 3-4 of the Czerny study is significantly different and not at issue. In Musical Example 56 below, "Don Diablo" is on the top staff, the Czerny study #15 is on the middle staff, and "Levitating" is on the bottom staff.

MUSICAL EXAMPLE 56**“Don Diablo” / “Czerny Op. 718, No. 15, bars 13-16 / “Levitating”**

5 5 3 3 3 3 2 2 2 2 1 1 1 1 7 7 7 7 6 6 6 6 6 7 6

"Don Diablo" 0:18

1 1 1 1 7 7 7 7 6 6 6 6 5 5 5 5 4 4 4 4 3 3 3 3 2 2 2 2 1 1 1 1

Czerny Op. 718, No. 15

5 5 5 5 4 4 4 4 3 3 3 3 2 2 2 2 1 1 1 1 7 1 1

"Levitating" 0:10

3 2 2 2 2 1 1 1 1 7 7 7 7 6 6 6 6 5 5 5 5 5 5 6 5 5

2 4 3 4 2 2 1 2 5 5 4 5 5 5 4 5 1 3 1 5 3 1 5 3 1

5 5 5 5 4 4 4 4 3 3 3 3 2 2 2 2 1 1 1 1 7 1

271. Musical Example 57 below uses the same notes as in Musical Example 56, adds brackets over the melodies in Czerny and “Levitating”, and highlights in **red** corresponding notes with *identical scale degrees, pitch, and rhythmic durations* but different metric placements, and highlights in **purple** corresponding notes with *identical scale degree 3 and rhythmic durations* (but different metric placements) with an “E” pitch in Czerny (because, like “Don Diablo”, it is in a major key) and an “Eb” pitch in “Levitating” (because it is in a minor key).

MUSICAL EXAMPLE 57

“Don Diablo” / Czerny, Op. 718, No. 15 bars 13-16 / “Levitating”

272. As shown in Musical Example 57 above, 38 out of a total of 46 notes (approximately 82%) in “Levitating” are *identical* in scale degree and rhythmic duration (but not in metric placement) and (not counting the 8 corresponding **purple**-highlighted notes) 30 are identical in scale degree, pitch, and rhythmic duration (but not in metric placement) as compared to the Czerny study Opus 718.

273. Musical Example 58 below uses the same notes as in Musical Examples 56 and 57. The purpose of Musical Example 58 is to filter out (with **Xs**) the notes in “Levitating” that are (1) not the same as in “Don Diablo” and/or (2) also in the prior

artwork by Czerny. Only one note out of 46 notes in “Levitating” remains after this filtration process which is highlighted in **purple** because the pitch is different in “Don Diablo” and “Levitating”.

MUSICAL EXAMPLE 58

“Don Diablo” / Czerny, Op. 718, No. 15 bars 13-16 / “Levitating”

The image displays three musical staves in 4/4 time. The top staff, labeled "Don Diablo" 0:18, is in G major and contains a sequence of notes with fingerings: 5 5, 3 3 3 3, 2 2 2 2, 1 1 1 1, 7 7 7 7, 6 6 6 6, 6 7, 6. The middle staff, labeled "Czerny Op. 718, No. 15", is in G major and contains a sequence of notes with fingerings: 1 1 1 1, 7 7 7 7, 6 6 6 6, 5 5 5 5, 4 4 4 4, 3 3 3 3, 2 2 2 2, 1 1 1 1. The bottom staff, labeled "Levitating" 0:10, is in E-flat major and contains a sequence of notes with fingerings: 5 5 5 5, 4 4 4 4, 3 3 3 3, 2 2 2 2, 1 1 1 1, 7, 1, 1. The notes in the bottom staff are marked with red 'X's, indicating they are filtered out. The notes in the bottom staff are: 5 5 5 5, 4 4 4 4, 3 3 3 3, 2 2 2 2, 1 1 1 1, 7, 1, 1. The notes in the bottom staff are: 5 5 5 5, 4 4 4 4, 3 3 3 3, 2 2 2 2, 1 1 1 1, 7, 1, 1.

274. Moreover, as shown in the alternate versions of Musical Examples 56 and 58 in **Visual Exhibit B**, employing relative keys, after filtering out notes in “Levitating” that are (1) different from notes in “Don Diablo” and/or (2) shared by the Czerny study, 21 out of 46 notes in “Levitating” remain (i.e., they are not filtered out) based on pitch, rhythmic duration, and metric placement (but different in scale degree) as

corresponding notes in “Diablo”. Thus, even when disregarding the different scale degrees (which are almost completely different) between “Don Diablo” and “Levitating”, (1) 54% of the corresponding notes are filtered out from “Levitating” and (2) the notes that are not filtered out are nothing more than a descending stepwise musical building block that was in common use before “Don Diablo” (and “Wiggle”).

275. In summary, in parallel keys, 38 out of a total of 46 notes (approximately 82%) in “Levitating” are *identical* in scale degree, pitch, and rhythmic duration (but not in metric placement) as compared to the Czerny study Opus 718. Whether compared in parallel or relative keys, the similarity at issue is repeating notes in a descending scale which is a musical building block that no composer can monopolize. When combined with the analysis and findings of the Czerny piano study Opus 299, #22, the Czerny piano study Opus 718, #15 significantly undermines and debilitates Plaintiffs’ claims.

(5) “Stayin’ Alive” (1977) by The Bee Gees

276. As analyzed in the section on “Rhythm” above, and as discussed earlier with regard to “Wiggle”, “Stayin’ Alive”, recorded by The Bee Gees, was released in 1977 as a single from the *Saturday Night Fever* soundtrack. The single was #1 for four consecutive weeks on the *Billboard* “Hot 100” in early 1978, two years before the release of “Don Diablo”.³⁹

277. As shown in Musical Example 41 above and in the accompanying analysis, the drumbeat and percussion in “Don Diablo” and “Stayin’ Alive” are more similar than the almost non-existent similarity between “Don Diablo” and “Levitating”. While the only similarity between the drumbeats in “Don Diablo” and “Levitating” is the basic and commonplace “four-on-the-floor” kick drum pattern, in addition to that similarity “Stayin’ Alive” and “Don Diablo” have continuous sixteenth notes (on a shaker in “Stayin’ Alive” and on the hi-hat in “Don Diablo”). Thus, the drumbeats and

³⁹ To recall, a copy of the published sheet music of “Stayin’ Alive” is attached as **Visual Exhibit G**, and its audio is available on YouTube at https://www.youtube.com/watch?v=I_izvAbhExY, where the descending melody at issue (which opens the Chorus) starts at 0:33

percussion rhythms are more similar between “Stayin’ Alive” and “Don Diablo” than between “Don Diablo” and “Levitating”. In addition, “Stayin’ Alive” and “Levitating” have backbeats on the snare drum, but “Don Diablo” does not. Moreover, the tempo of “Stayin’ Alive”, 103 BPM, is the same as the 103 BPM tempo of “Levitating”. The tempo of “Don Diablo” is faster at approximately 108 BPM.

In Addition to Greater Rhythmic Similarities to “Don Diablo”, the Melody at Issue in “Stayin’ Alive” Embodies the Musical Building Block Similarity at Issue

278. In addition to greater drumbeat rhythmic similarities between “Stayin’ Alive” and “Don Diablo” than the nearly non-existent drumbeat similarity between “Don Diablo” and “Levitating”, the vocal melody in “Stayin’ Alive” embodies the musical building block similarity at issue.

279. While “Don Diablo” is in a major key, “Stayin’ Alive” and “Levitating” are in minor keys. The opening Chorus melody in “Stayin’ Alive” embodies the musical building block similarity at issue. In Musical Example 59 below, “Don Diablo” is on the top staff, “Stayin’ Alive” is in the middle staff, and “Levitating” is on the bottom staff. As shown therein, within both “Stayin’ Alive” and “Levitating”, the descending melodies in bar 1 and in bar 3 start with four iterations of scale degree 5. However, within “Don Diablo”, the descending melody in bar 1 starts on scale degree 3 (an “E” pitch) and the descending melody in bar 3 starts on scale degree 2 (a “D” pitch), **a step lower**. Thus, the melodic structure and development of the melodies “Stayin’ Alive” and “Levitating” are very similar while they are very different in this respect between “Don Diablo” and “Levitating”.

MUSICAL EXAMPLE 59**“Don Diablo” / “Stayin’ Alive” / “Levitating”**

5 5 3 3 3 3 2 2 2 2 1 1 1 1 7 7 7 7 6 6 6 6 6 6 7 6

"Don Diablo" 0:18

5 5 5 5 5 4 4 4 3 3 3 3 2 2 2 3 3 3 2 3 3 3

"Stayin' Alive" 0:33

5 5 5 5 4 4 4 4 3 3 3 3 2 2 2 2 1 1 1 1 1 7 1 1

"Levitating" 0:10

3 2 2 2 2 1 1 1 1 7 7 7 7 6 6 6 6 5 5 5 5 5 5 6 5 5

5 5 5 5 5 4 4 4 3 3 3 3 2 2 2 2 2 3 3 3 2 3 3 3

5 5 5 5 4 4 4 4 3 3 3 3 2 2 2 2 1 1 1 1 7 1

280. The chart below provides scale degrees of the notes in bar 1 of “Don Diablo”, “Stayin’ Alive”, and “Levitating” as shown in Musical Example 59 above. While 13 of the 16 notes in “Levitating” have identical scale degrees compared to corresponding notes in “Stayin’ Alive”, there is a complete absence of any identical corresponding scale degrees between “Don Diablo” and “Levitating” as demonstrated in the following chart. Identical corresponding scale degrees, including the same rhythmic duration, are highlighted in red.

“Don Diablo” bar 1:	5 5 3 3 3 3 2 2 2 2 1 1 1 1 7 7 7 7
“Stayin’ Alive” bar 1:	5 5 5 5 5 4 4 4 3 3 3 3 2 2 2
“Levitating” bar 1:	5 5 5 5 4 4 4 4 3 3 3 3 2 2 2 2

281. Now comparing scale degrees in bar 3 of “Don Diablo”, “Stayin’ Alive”, and “Levitating”, once again while 13 of the 16 notes in “Levitating” have identical scale degrees compared to corresponding notes in “Stayin’ Alive”, there is a complete absence of any identical corresponding scale degrees between “Don Diablo” and “Levitating”.

“Don Diablo” bar 3:	2 2 2 2 1 1 1 1 7 7 7 6 6 6 6
“Stayin’ Alive” bar 3:	5 5 5 5 5 4 4 4 3 3 3 3 2 2 2
“Levitating” bar 3:	1 5 5 5 5 4 4 4 3 3 3 3 2 2 2

282. The melodic rhythm in “Stayin’ Alive” is marked by “tied” (held over) notes, represented by curved lines in Musical Example 59 above. That is a difference between the melodies at issue in “Stayin’ Alive” as compared to both “Don Diablo” and “Levitating”. Nonetheless, the only similarity between “Don Diablo” and “Levitating” is a descending musical building block melody albeit with completely different scale degrees between “Don Diablo” and “Levitating”.

283. Musical Example 60 below uses the same notes as in Musical Example 59 but highlights in **red** the corresponding notes with *identical* scale degrees, pitch, metric placements, and rhythmic durations. As shown therein, 23 out of a total of 46 notes (50%) in “Levitating” are *identical* in scale degree, pitch, metric placement, and rhythmic duration to notes in the melody n “Stayin’ Alive”.

284. This is also the case when analyzed in “relative” keys in which case 23 out of a total of 46 notes (50%) in “Levitating” are also *identical* in scale degree, pitch, metric placement, and rhythmic duration to notes in the melody in “Stayin’ Alive” as shown in Musical Example 60 in **Visual Exhibit B**.

MUSICAL EXAMPLE 60**“Don Diablo” / “Stayin’ Alive” / “Levitating”**

5 5 3 3 3 3 2 2 2 2 1 1 1 1 7 7 7 7 6 6 6 6 6 6 7 6

"Don Diablo" 0:18

5 5 5 5 5 4 4 4 3 3 3 3 2 2 2 3 3 3 2 3 3 3

"Stayin' Alive" 0:33

5 5 5 5 4 4 4 4 3 3 3 3 2 2 2 2 1 1 1 1 1 7 1 1

"Levitating" 0:10

3 2 2 2 2 1 1 1 1 7 7 7 7 6 6 6 6 5 5 5 5 5 5 6 5 5

5 5 5 5 5 4 4 4 3 3 3 3 2 2 2 2 2 3 3 3 2 3 3 3

5 5 5 5 4 4 4 4 3 3 3 3 2 2 2 2 1 1 1 1 7 1

285. Musical Example 61 below uses the same notes as in Musical Example 60. The purpose of Musical Example 61 is to filter out (with **Xs**) the notes in “Levitating” that (1) are not the same as in “Don Diablo” and/or (2) are also in the “Stayin’ Alive” prior artwork. Only one note out of 46 notes in “Levitating” remains after this filtration process. That note, scale degree 7 in bar 2, is highlighted in **purple** because the pitch is different: scale degree 7 is a “B” pitch in “Don Diablo” but it is a “Bb” pitch in “Levitating”.

MUSICAL EXAMPLE 61**“Don Diablo” / “Stayin’ Alive” / “Levitating”**

5 5 3 3 3 3 2 2 2 2 1 1 1 1 7 7 7 7 6 6 6 6 6 6 7 6

"Don Diablo" 0:18

5 5 5 5 5 4 4 4 3 3 3 3 2 2 2 3 3 3 2 3 3 3

"Stayin' Alive" 0:33

5 5 5 5 4 4 4 4 3 3 3 3 2 2 2 2 1 1 1 1 7 1 1

"Levitating" 0:10

3 2 2 2 2 1 1 1 1 7 7 7 7 6 6 6 6 5 5 5 5 5 5 6 5 5

5 5 5 5 5 4 4 4 3 3 3 3 2 2 2 2 2 3 3 3 2 3 3 3

5 5 5 5 4 4 4 4 3 3 3 3 2 2 2 2 1 1 1 1 7 1

286. As shown in the alternate versions of Musical Examples 59, 60 and 61 in **Visual Exhibit B**, even when compared in “relative” keys, only nine notes out of 46 notes in “Levitating” are not filtered out and those notes are mostly isolated or, in one instance, merely consist of four iterations of scale degree 1. Thus, the expression that remains in “Levitating” after the filtration process is fragmented and minimal.

287. Whether compared in “parallel” keys as above or in “relative” keys, the opening bars of the memorable Chorus in “Stayin’ Alive” undermine a musicological claim that the musical building block that is shared by “Don Diablo” and “Levitating” can be monopolized by Plaintiffs.

288. In summary, there are more similarities between “Stayin’ Alive” and “Levitating” than between “Don Diablo” and “Levitating” because:

- While “Don Diablo” is in a major key, “Stayin’ Alive” and “Levitating” are in minor keys.
- In “Stayin’ Alive” and “Levitating”, the descending melodies in bars 1 and 3 start with four iterations of scale degree 5 descending through scale degree 2. However, within “Don Diablo”, the descending melody in bar 1 starts on scale degree 3 (an “E” pitch) but the descending melody in bar 3 starts on scale degree 2 (a “D” pitch), **a step lower**. This not only points to a similarity between “Stayin’ Alive” and “Levitating” that is not shared by “Don Diablo”, but it also points to a difference between “Don Diablo” and “Levitating”.
- 23 out of a total of 46 notes (50%) in “Levitating” are *identical* in scale degree, pitch, metric placement, and rhythmic duration to the melody in “Stayin’ Alive” in parallel keys.
- Only one note out of 46 notes in “Levitating” remains after filtering out the notes that are different in “Don Diablo” and/or the notes that are shared by “Stayin’ Alive” when analyzed in parallel keys. When analyzed in relative keys, only nine notes out of 46 notes in “Levitating” are not filtered out and those notes constitute isolated, fragmentary, and minimal expression.

289. On the basis of my analysis, the well-known melody that opens the Chorus of “Stayin’ Alive” (which was a huge hit in the year before “Wiggle” and two years before “Don Diablo”) significantly undermines and debilitates Plaintiffs’ claims.

(6) “Ging Gang Goolie” (created by 1920)

290. As addressed above with respect to “Wiggle”, “Ging Gang Goolie” is a song associated with the international Scouting movement introduced in 1920, with numerous online performances, including a 1978 version by Eric Idle and Ricky Fataar (“Dirk and Stig”). The Dirk and Stig version is available at

<https://www.youtube.com/watch?v=O6SOaDKHoCk>, where the descending melody occurs at 1:29. I based my transcription on the performance in <https://youtube.com/watch?v=A1Ynm4cqTg>.

291. “Ging Gang Goolie” is in a major key as is “Don Diablo”. As shown in Musical Example 62 below, “Ging Gang Goolie” embodies the descending musical building block at issue in “Don Diablo” and “Levitating”. In Musical Example 62 below, “Don Diablo” is on the top staff, “Ging Gang Goolie” is on the middle staff, and “Levitating” is on the bottom staff.

MUSICAL EXAMPLE 62

“Don Diablo” / “Ging Gang Goolie” / “Levitating”

5 5 3 3 3 3 2 2 2 2 1 1 1 1 7 7 7 7 6 6 6 6 6 6 7 6

"Don Diablo" 0:18

5 5 5 5 4 4 4 4 3 3 3 3 2 2 2 2 1 5 1 5 1 5 1 3

"Ging Gang Goolie" 0:45

5 5 5 5 4 4 4 4 3 3 3 3 2 2 2 2 1 1 1 1 1 7 1 1

"Levitating" 0:10

3 2 2 2 2 1 1 1 1 7 7 7 7 6 6 6 6 5 5 5 5 5 5 6 5 5

5 5 5 5 5 5 5 5 3 1 3 2 5 2 1 1 3

5 5 5 5 4 4 4 4 3 3 3 3 2 2 2 2 1 1 1 1 7 1

292. Musical Example 63 below uses the same notes as in Musical Example 62 but highlights (in **red**) the corresponding noteheads in “Ging Gang Goolie” and

“Levitating” with identical scale degree, pitch, metric placement, and rhythmic duration. Notes that are *identical* in scale degree, pitch, and metric placement but different in rhythmic duration are highlighted in **purple**. Scale degree 3 in “Ging Gang Goolie” is the pitch E while scale degree 3 in “Levitating” is E-flat. The corresponding scale degree 3 notes that are *identical* in rhythmic duration, metric placement, and scale degree but different in pitch, are also highlighted in **purple**.

MUSICAL EXAMPLE 63

“Don Diablo” / “Ging Gang Goolie” / “Levitating”

Three staves of music are shown, each with a title and a time signature. The first staff is "Don Diablo" (0:18) in 4/4 time. The second staff is "Ging Gang Goolie" (0:45) in 4/4 time. The third staff is "Levitating" (0:10) in 4/4 time. Each staff contains a melodic line with fingerings (1-7) and notes that are identical in scale degree, pitch, metric placement, and rhythmic duration across the three pieces, highlighted in purple. The notes are: 5 5 3 3 3 3 2 2 2 2 1 1 1 1 7 7 7 7 6 6 6 6 6 6 7 6 for "Don Diablo"; 5 5 5 5 4 4 4 4 3 3 3 3 2 2 2 2 1 5 1 5 1 5 1 3 for "Ging Gang Goolie"; and 5 5 5 5 4 4 4 4 3 3 3 3 2 2 2 2 1 1 1 1 1 7 1 1 for "Levitating".

293. As shown in Musical Example 63 above, 22 out of a total of 46 notes (approximately 49% of the notes) in “Levitating” are *identical* in scale degree, metric placement, and rhythmic duration with “Ging Gang Goolie” and three additional

corresponding notes are the same in scale degree and metric placement. As noted above, while the four notes in bar 1 that are highlighted in **purple** have identical scale degree, metric, placement, and rhythmic duration as the corresponding four notes in “Levitating”, the pitch in “Ging Gang Goolie” is “E” while the pitch in “Levitating” is Eb.

294. Musical Example 64 below uses the same notes as in Musical Examples 62 and 63. The purpose of Musical Example 64 is to filter out (with **Xs**) the notes in “Levitating” that (1) are not the same as in “Don Diablo” and/or (2) are also in the prior artwork, “Ging Gang Goolie”. As shown therein, only one note out of 46 notes in “Levitating” remains after this filtration process and that note, although the same in scale degree, rhythmic duration, and metric placement, is different in pitch as compared with “Don Diablo”.⁴⁰

⁴⁰ As shown in the alternate versions of Musical Examples 62 and 64 in **Visual Exhibit B**, using relative keys, after filtering out notes in “Levitating” that (1) are different from notes in “Don Diablo” and/or (2) are in “Ging Gang Goolie”, 21 out of 46 notes in “Levitating” remain because they are the same in pitch, rhythmic duration, and metric placement (but different in scale degree) as corresponding notes in “Don Diablo”. Thus, even when disregarding the different scale degrees (which are almost completely different) between “Don Diablo” and “Levitating”, (1) 54% of the corresponding notes are filtered out from “Levitating” and (2) the notes that are not filtered out are nothing more than a descending stepwise musical build block that was commonplace before “Don Diablo” (and “Wiggle”) and, the first 20 notes of which are identically found in a nineteenth-century Czerny study as shown above.

MUSICAL EXAMPLE 64**“Ging Gang Goolie” / “Don Diablo” / “Levitating”**

The image displays three musical staves, each representing a different song. Each staff is in 4/4 time and features a descending eighth-note pattern. The first staff, labeled "Don Diablo" with a timestamp of 0:18, shows a sequence of notes with fingerings 5 5 3 3 3 3 2 2 2 2 1 1 1 1 7 7 7 7 6 6 6 6 6 6 7 6. The second staff, labeled "Ging Gang Goolie" with a timestamp of 0:45, shows a sequence of notes with fingerings 5 5 5 5 4 4 4 4 3 3 3 3 2 2 2 2 1 5 1 5 1 5 1 3. The third staff, labeled "Levitating" with a timestamp of 0:10, shows a sequence of notes with fingerings 5 5 5 5 4 4 4 4 3 3 3 3 2 2 2 2 1 1 1 1 1 7 1 1. Red 'X' marks are placed over the notes in the "Levitating" staff to highlight similarities with the other two songs.

295. In summary, “Ging Gang Goolie” embodies the descending musical building block at issue between “Don Diablo” and “Levitating”. “Ging Gang Goolie” adds to the musicological evidence that the similarity between “Levitating” and “Don Diablo” is an inconsequential musical building block that cannot be monopolized by Plaintiffs.

(7) “Se dice de mí” (1943)

296. As addressed above in the context of “Wiggle”, “Se dice de mí” (abbreviated here as “Se dice”), whose sheet music is attached as **Visual Exhibit H**, was composed by the South American tango composer, violinist, and orchestra conductor Francisco Canaro (1888-1964), and recorded in 1943. As with the

comparison with “Wiggle”, the Bridge section of “Se dice” embodies the main melodic similarity at issue in a comparison of “Levitating” with “Don Diablo”.

297. As shown in the attached sheet music, the chords in the accompaniment in the Bridge section of “Se dice” (3 bars of a C chord, 4 bars of a G7/B chord, and one bar of a C chord) are much more similar to the chords in “Don Diablo” (which is also in a major key) than the very different chords between “Don Diablo” and “Levitating”. (See the analysis in the section on Harmony in “Don Diablo” and “Levitating” above in this report.)

298. In Musical Example 65 below, scale degree numbers are input above the notes in the three melodies at issue in “Se dice”, “Don Diablo”, and “Levitating”, shown in parallel keys.

MUSICAL EXAMPLE 65

"Se dice de mi" / "Don Diablo" / "Levitating"

5 6 7 1 1 1 1 2 2 2 2 3 3 3 3 2 2 2 2 1 1 1 1 7 7 7 7 6 4 5 6

"Se dice de mi" (Bridge)

5 5 3 3 3 3 2 2 2 2 1 1 1 1 7 7 7 7 6 6 6 6 6 6 7 6

"Don Diablo" 0:18

5 5 5 5 4 4 4 4 3 3 3 3 2 2 2 2 1 1 1 1 1 7 1 1

"Levitating" 0:10

3 7 7 7 7 1 1 1 1 2 2 2 2 1 1 1 1 7 7 7 7 6 6 6 6 5

2 2 2 2 1 1 1 1 7 7 7 7 6 6 6 6 5 5 5 5 5 5 6 5 5

5 5 5 5 4 4 4 4 3 3 3 3 2 2 2 2 1 1 1 1 7 1

299. As shown in Musical Example 65 above, "Se dice" is in 2/4 meter and, after the pickup notes, in bar 1 the melody ascends with sixteenth notes on scale degrees 1 1 1 1 2 2 2 2. Notably, from bars 2 through the first beat of bar 4 (in 2/4 meter) and bars 6 through the first beat of bar 8 in "Se dice", the notes are more similar to the descending melody at issue in bars 1 through 4 in "Don Diablo", than any similarity between those corresponding notes in "Levitating" and "Don Diablo". In the chart below, the scale degrees of notes with identical scale degree, pitch, and rhythmic duration in the first melodic phrase are highlighted in red. The scale degrees of notes

with identical scale degree and pitch but different rhythmic durations are highlighted in **purple**. This is also represented in Musical Example 58 below.

“Se dice” starting on beat 3**: 3 3 3 3 2 2 2 2 1 1 1 1 7 7 7 7 6

“Don Diablo” starting on beat 1: 3 3 3 3 2 2 2 2 1 1 1 1 7 7 7 7 6

“Levitating” starting on beat 1: 5 5 5 5 4 4 4 4 3 3 3 3 2 2 2 2 1

**This is beat 1 of bar 2 because “Se dice” is in 2/4-meter.

300. In addition, the first melodic phrase is repeated down a whole step in the second melodic phrase in “Se dice” and “Don Diablo”, but not in “Levitating” as shown in the charts below, and in Musical Example 58 below.

“Se dice”, starting on beat 1**: 2 2 2 2 1 1 1 1 7 7 7 7 6 6 6 6 5

“Don Diablo”, starting on beat 1: 2 2 2 2 1 1 1 1 7 7 7 7 6 6 6 6 5

“Levitating”, starting on beat 1: 5 5 5 5 4 4 4 4 3 3 3 3 2 2 2 2 1

**This is beat 1 of bar 6 because “Se dice” is in 2/4-meter.

301. In Musical Example 66 below, a total of 32 notes have **red** highlighted scale degrees because they are identical in pitch, scale degree, and rhythmic duration (but not metric placement) and two additional notes have purple highlighted scale degrees because they are identical pitch and scale degree (but not in rhythmic duration). These obvious similarities between the melodies at issue in “Don Diablo” and “Se dice” are demonstrated on Tracks 7 and 8 of **Audio Exhibit 1** attached to this report as follows:

Track 7 places side-by-side, the first bracketed and highlighted melodies in “Se dice” and “Don Diablo” starting on scale degree 3, an E pitch. This pairing is presented four times. The first 16 notes are identical in pitch, scale degree, and rhythmic duration (but not metric placement) and the last (17th) note in “Se dice” is the same in pitch and scale degree but not duration and metric placement.

Track 8 places side-by-side, the second bracketed and highlighted melodies in “Se dice” and “Don Diablo” starting on scale degree 2, a D pitch. This pairing is presented four times. The first 16 notes are identical in pitch, scale degree, and

rhythmic duration (but not metric placement) and the last (17th) note in “Se dice” is the same in pitch and scale degree but not duration and metric placement.

MUSICAL EXAMPLE 66

“Se dice de mi” / “Don Diablo” / “Levitating”

"Se dice de mi" (Bridge)

"Don Diablo" 0:18

"Levitating" 0:10

3 7 7 7 7 1 1 1 1 2 2 2 2 3 3 3 3 2 2 2 2 1 1 1 1 7 7 7 7 6 4 5 6

5 5 3 3 3 3 2 2 2 2 1 1 1 1 7 7 7 7 6 6 6 6 6 6 7 6

5 5 5 5 4 4 4 4 3 3 3 3 2 2 2 2 1 1 1 1 1 7 1 1

7 7 7 7 1 1 1 1 2 2 2 2 1 1 1 1 7 7 7 7 6 6 6 6 5

2 2 2 2 1 1 1 1 7 7 7 7 6 6 6 6 5 5 5 5 5 6 5 5

5 5 5 5 4 4 4 4 3 3 3 3 2 2 2 2 1 1 1 1 1 7 1

302. Musical Example 67 below uses the same notes as in Musical Examples 65 and 66 but filters out (with **Xs**) the notes in “Levitating” that (1) are not the same as in “Don Diablo” and/or (2) are also in the prior art work, “Se dice”. Not one note out of 46 notes in “Levitating” remains after this filtration process.⁴¹

⁴¹ As shown in the alternate versions of Musical Examples 65 and 67 in **Visual Exhibit B**, using relative keys, after filtering out notes in “Levitating” that (1) are different from notes in “Don Diablo” and/or (2) are in “Se dice”, 17 out of 46 notes in “Levitating”

MUSICAL EXAMPLE 67**“Se dice de mi” / “Don Diablo” / “Levitating”**

The image displays three musical staves with fingerings and red X marks indicating note differences or similarities:

- "Se dice de mi" (Bridge)**: Treble clef, 2/4 time. Fingering: 5 6 7, 1 1 1 1 2 2 2 2, 3 3 3 3 2 2 2 2, 1 1 1 1 7 7 7 7, 6, 4 5 6. The melody consists of eighth and sixteenth notes.
- "Don Diablo" 0:18**: Treble clef, 4/4 time. Fingering: 5 5, 3 3 3 3 2 2 2 2, 1 1 1 1 7 7 7 7, 6 6 6 6 6 6 7, 6. The melody consists of eighth and sixteenth notes.
- "Levitating" 0:10**: Treble clef, 4/4 time. Fingering: 5 5 5 5 4 4 4 4, 3 3 3 3 2 2 2 2, 1 1 1 1 1, 7, 1, 1. The melody consists of eighth and sixteenth notes. Red X marks are placed over the notes: 5 5 5 5 4 4 4 4, 3 3 3 3 2 2 2 2, 1 1 1 1 1, 7, 1, 1.

Below the first staff, there are three more staves with fingerings and red X marks:

- Staff 1: Treble clef, 4/4 time. Fingering: 3, 7 7 7 7 1 1 1 1, 2 2 2 2 1 1 1 1, 7 7 7 7 6 6 6 6, 5. The melody consists of eighth and sixteenth notes.
- Staff 2: Treble clef, 4/4 time. Fingering: 2 2 2 2 1 1 1 1, 7 7 7 7 6 6 6 6, 5 5 5 5 5 5 6 5, 5. The melody consists of eighth and sixteenth notes.
- Staff 3: Treble clef, 4/4 time. Fingering: 5 5 5 5 4 4 4 4, 3 3 3 3 2 2 2 2, 1 1 1 1, 1, 7, 1. The melody consists of eighth and sixteenth notes. Red X marks are placed over the notes: 5 5 5 5 4 4 4 4, 3 3 3 3 2 2 2 2, 1 1 1 1, 1, 7, 1.

303. In summary, the multiple prior art works analyzed above – “Contestación a La Casa en el Aire”, “El Cafetal”, Czerny Op. 299, Czerny Op. 718, “Stayin’ Alive”, “Ging Gang Goolie”, and “Se dice de mi” – embody the musical building block similarity at issue. The aggregate of these numerous prior art works from a non-exhaustive search demonstrates that the similarity claimed between “Levitating” and “Don Diablo” is a

remain. Thus, even when disregarding the different scale degrees (which are almost completely different) between “Don Diablo” and “Levitating”, (1) 63% of the corresponding notes are filtered out from “Levitating” and (2) the notes that remain are merely a fragmented descending scale musical building block found in prior art.

common and longstanding musical building block that cannot be monopolized by Plaintiffs. Its appearance in so many works prior to “Don Diablo” refutes any claim of copying and instead supports that “Levitating” was independently created.

The Musical Building Block Similarity at Issue Is Present in 19th-Century Exercise Books

304. As found in the case of “Wiggle”, in addition to the many prior art works analyzed above, the musical building block similarity at issue in “Don Diablo” is also present in 19th-century exercise books such as piano exercises by Albert Loeschhorn and trumpet exercises by J. B. Arban as shown below.

(7) Albert Loeschhorn (d. 1905) *Universal Studies* (preparatory exercise)

305. As noted above, before his death in 1905, (Carl) Albert Loeschhorn published a series of piano studies books, including “For The Medium Grade” from his series *Universal Studies*, excerpted in **Visual Exhibit I**. The second line of the two-line “preparatory exercise” on page 20 of this book also is based on the musical building block repetition of four sixteenth notes that ascend then descend in stepwise motion.

306. In Musical Example 68 below, Loeschhorn’s preparatory exercise, in the key of C major, is excerpted alongside transcriptions of the melodies at issue in bars 1-4 of the Verse in “Don Diablo” and “Levitating” in parallel keys. An alternate version of Musical Example 68 in relative keys is in **Visual Exhibit B**.

MUSICAL EXAMPLE 68

Loeschhorn / "Don Diablo" / "Levitating"

Loeschhorn
Op. 169, No. 10
preparatory exercise

"Don Diablo"
0:18

"Levitating"
0:10

2 2 2 2 1 1 1 1 7 7 7 7 6 6 6 6 5 5 5 5 4 4 4 4 3 3 3 3 2 2 2 2

5 5 3 3 3 3 2 2 2 2 1 1 1 1 7 7 7 7 6 6 6 6 6 6 7 6

5 5 5 5 4 4 4 4 3 3 3 3 2 2 2 2 1 1 1 1 7 1 1

3 1

2 2 2 2 1 1 1 1 7 7 7 7 6 6 6 6 5 5 5 5 5 5 6 5 5

5 5 5 5 4 4 4 4 3 3 3 3 2 2 2 2 1 1 1 1 7 1

307. Musical Example 69 below uses the same notes as in Musical Example 68 but adds brackets over the melodies in Loeschhorn, "Don Diablo", and "Levitating" and highlights in **red** the corresponding notes with identical scale degree, pitch, metric placement, and rhythmic duration, and highlights in **purple** the corresponding notes with different pitches or rhythmic durations.

MUSICAL EXAMPLE 69**Loeschhorn / "Don Diablo" / "Levitating"**

Loeschhorn
Op. 169, No. 10
preparatory exercise

"Don Diablo"
0:18

"Levitating"
0:10

3 1

308. Using the notes, brackets, and highlighted scale degrees from Musical Example 69, in Musical Example 69A below, bars 1-2 in Loeschhorn are on the top staff and bars 3-4 in "Don Diablo" are on the bottom staff. As shown in Musical Example 69A, twenty identical notes are highlighted in which the musical building block similarity is shown.

MUSICAL EXAMPLE 69A**Loeschhorn / "Don Diablo"**

Loeschhorn
Op. 169, No. 10
preparatory exercise

"Don Diablo"
0:22

The image shows two musical staves in 4/4 time. The top staff is for Loeschhorn's preparatory exercise, and the bottom staff is for "Don Diablo". Both staves feature a series of eighth notes. Above the notes, scale degrees are indicated with red numbers. A bracket groups the first 14 notes of each staff. The top staff's scale degrees are: 2 2 2 2 1 1 1 1 7 7 7 7 6 6 6 6 5 5 5 5 4 4 4 4 3 3 3 3 2 2 2 2. The bottom staff's scale degrees are: 2 2 2 2 1 1 1 1 7 7 7 7 6 6 6 6 5 5 5 5 5 5 6 5 5. The bottom staff ends with a whole rest.

309. Once again using the notes, brackets, and highlighted scale degrees from Musical Example 69, in Musical Example 69B below, bars 2-3 in Loeschhorn are on the top staff and bars 1-2 in "Levitating" are on the bottom staff. As shown in Musical Example 69B, there is a nearly identical descending melody with repeating notes in which the similarity at issue is a musical building block.

MUSICAL EXAMPLE 69B**Loeschhorn / "Levitating"**

Loeschhorn
Op. 169, No. 10
preparatory exercise

"Levitating"
0:10

The image shows two musical staves in 4/4 time. The top staff is for Loeschhorn's preparatory exercise, and the bottom staff is for "Levitating". Both staves feature a series of eighth notes. Above the notes, scale degrees are indicated with red numbers. A bracket groups the first 14 notes of each staff. The top staff's scale degrees are: 5 5 5 5 4 4 4 4 3 3 3 3 2 2 2 2 1. The bottom staff's scale degrees are: 5 5 5 5 4 4 4 4 3 3 3 3 2 2 2 2 1 1 1 1 7 1 1. The bottom staff ends with a quarter note and a quarter rest.

310. Still using the notes, brackets, and highlighted scale degrees from Musical Example 69, in Musical Example 69C below, bars 2-3 in Loeschhorn are on the top staff and bars 3-4 in "Levitating" are on the bottom staff. As shown in Musical Example 69C

below, there is a nearly identical descending melody with repeating notes in which the similarity at issue is a musical building block.⁴²

MUSICAL EXAMPLE 69C

Loeschhorn / “Levitating”

The image displays two musical staves. The top staff is for Loeschhorn's Op. 169, No. 10, a preparatory exercise in 4/4 time. The bottom staff is for the song "Levitating" at 0:13, also in 4/4 time. Both staves show a descending melody with repeating notes. Above the notes, fingerings are indicated with numbers 1-5. In the Loeschhorn exercise, the first 13 notes are grouped by a bracket and have fingerings: 5, 5, 5, 5, 4, 4, 4, 4, 3, 3, 3, 3, 2, 2, 2, 2, 1. In the "Levitating" track, the first 13 notes have the same fingerings: 5, 5, 5, 5, 4, 4, 4, 4, 3, 3, 3, 3, 2, 2, 2, 2, 1. The "Levitating" track continues with notes 1, 1, 1, 7, 1.

311. In summary, as analyzed above, the Loeschhorn preparatory exercise embodies the musical building block that is at issue between “Don Diablo” and “Levitating”. Published by 1882, this is only one of multiple prior art works which embody the similarity at issue and establish that the musical building block at issue was a commonplace melodic device long before “Don Diablo”.

(8) Jean-Baptiste Arban Complete Conservatory Method for Trumpet, #83 (1864)

312. Jean-Baptiste Arban (b. 1825, d. 1889) was a renowned trumpet (cornet) player and pedagogue: “Arban is acknowledged as the founder of the modern school of trumpet playing.”⁴³ His classic trumpet (cornet) method book, *Complete Conservatory Method for Trumpet* first published in 1864, continues to be widely used by trumpet students and professionals. A copy of the book cover, publisher’s note, and exercise #83 on page 176 of the book are attached as **Visual Exhibit J**. Arban’s exercise #83 is

⁴² That any similarity between “Don Diablo” and “Levitating” is merely a musical building block is also shown by the alternate version of Musical Example 68 in **Visual Exhibit B**, which presents the same comparison with Loeschhorn in relative keys.

⁴³ *Baker’s Biographical Dictionary of Musicians*, (Schirmer Books, Eighth Edition, 1992, p. 50).

based on the musical building block repetition of four sixteenth notes that ascend then descend in stepwise motion.

313. Arban's exercise #83 is in the key of F major. In keeping with musicological practices and as explained and implemented above, the exercise is transposed to the key of C major in the transcriptions below. The transcription in Musical Example 70 below starts at the beginning of the repeating and descending sixteenth notes in bar 11 (in 2/4 meter). The number, #83, is circled and a handwritten arrow shows where the transcription starts in **Visual Exhibit J**. An alternate Musical Example 70 in relative keys is in **Visual Exhibit B**.

MUSICAL EXAMPLE 70

Arban / "Don Diablo" / "Levitating"

Arban Trumpet Method #83

"Don Diablo" 0:18

"Levitating" 0:10

3

314. Musical Example 71 below uses the same notes as in Musical Example 70 but adds brackets over the melodies in Arban, “Don Diablo”, and “Levitating” highlights corresponding notes in **red** and **purple** (the latter highlight is used when the corresponding scale degrees are the same but the pitch is E as compared with Eb or when the rhythmic durations are not the same). These highlighted notes represent the use of the musical building block that is at issue.

MUSICAL EXAMPLE 71

Arban / “Don Diablo” / “Levitating”

Musical Example 71 displays three musical excerpts with scale degree annotations (fingerings) above the notes. The excerpts are:

- Arban Trumpet Method #83** (2/4 time): The first measure has red annotations 1 1 1 1 7 7 7 7 and purple 6 6 6 6 5. The second measure has red 7 7 7 7 6 6 6 6 and purple 5 5 5 5, followed by a 4.
- "Don Diablo" 0:18** (4/4 time): The first measure has 5 5. The second measure has 3 3 3 3 2 2 2 2. The third measure has red 1 1 1 1 7 7 7 7 and purple 6 6 6 6, followed by 6 6 7 and a 6.
- "Levitating" 0:10** (4/4 time): The first measure has red 5 5 5 5 4 4 4 4 and purple 3 3 3 3 2. The second measure has 2 2 2. The third measure has 1 1 1 1 1, followed by 7, 1, and 1.

The bottom section of the image shows a continuation of the musical notation with additional scale degree annotations:

- Measure 3: 6 6 6 6 5 5 5 5 4 4 4 4 3. The second measure has red 5 5 5 5 4 4 4 4 and purple 3 3 3 3 2.
- Measure 4: 2 2 2 2. The first measure has red 1 1 1 1 7 7 7 7 and purple 6 6 6 6. The second measure has red 5 5 5 5, followed by 5 5 6 5 5.
- Measure 5: Red 5 5 5 5 4 4 4 4 and purple 3 3 3 3 2. The second measure has 2 2 2. The third measure has 1 1 1, followed by 1, 7, and 1.

315. In summary, as analyzed above, Arban's trumpet exercise #83 embodies the same musical building block that is shared between "Don Diablo" and "Levitating". When combined with the numerous prior art works analyzed above, it is clear that the musical building block at issue was a commonplace melodic device long before "Don Diablo" and cannot be monopolized by Plaintiffs.

Use of the Same Musical Block Building Block Appears Frequently in Other Popular Music Since "Wiggle"

316. As discussed above in connection with "Wiggle", in addition to the nine prior art works identified above that embody expression at issue, many related popular songs released **after** "Don Diablo" but before the 2020 release of "Levitating" further demonstrate the commonplace nature of repeated notes that descend in scale-wise fashion, often in a "patter song" style. To reiterate, such works include:

- (a) Paulino Rubio, Mio (Mexico, 1992) at 0:16. See <https://www.youtube.com/watch?v=mDQh6hZFOW4&t=16s>.
- (b) Christina Millian, "AM to PM" (U.S., 2001) at 0:36. See <https://www.youtube.com/watch?v=os-OoiMe5jc&t=36s>.
- (c) Isley Brothers, "What Would You Do, Pt. 2) at 0:12. See <https://www.youtube.com/watch?v=FnQyC0E1Qgg&t=11s>.
- (d) Mashonda, "Back of the Club" (U.S., 2005) at 0:10. See <https://www.youtube.com/watch/kd8PPS3NC7U&t=10s>.
- (e) Lily Allen, "LDN" (U.K., 2006) at 0:11. See <https://www.youtube.com/watch?v=wmYT79tPvLg&t=10s>.
- (f) Momoiro Clover Z, "'Neo STARGATE" (Japan, 2013) at 1:18. See <https://www.youtube.com/watch?v=tiX22vnR-SU&t=76s>.
- (g) Leo Soul, "Do Ya Thing" (U.S., 2016) at 0:38. See <https://www.youtube.com/watch?v=HfNgUdeW0SY&t=38s>.

(h) Ricky Martin - Vente Pa' Ca ft. Maluma (U.S., 2016) at 0:29 (first heard), 1:27 (in vocal), 1:46 (on accordion). See

<https://www.youtube.com/watch?v=iOe6dl2JhgU&t=29s>.

(i) Grupo Marca Registrada, “Cumbia del Coralillo” (Mexico, 2017). See

<https://www.youtube.com/watch?v=9FOsu01akkQ>.

(j) Macky Gee, “Moments” (U.K., 2018) at 0:22 and 1:29. See

https://www.youtube.com/watch?v=M3595q_gVlk&t=22s.

(k) Ivy Queen, “La Roca” (Puerto Rico, 2019) at 0:07. See

<https://www.youtube.com/watch?v=gCllgLKNgQk&t=7s>.

317. As noted above, transcriptions from five of the above songs, “LDN” (2006) as recorded by Lily Allen, “Mio” (released in 1992) as recorded by Paulina Rubio, “What Would You Do, Pt. 2” as recorded by the Isley Brothers (2003), “Neo STARGATE” as recorded by Momoiro Clover Z (2013), and “Moments” as recorded by Macky Gee (2018) are in **Visual Exhibit K**. All of these diverse works reinforce the conclusion that the musical building block at issue was a commonplace melodic device long before and after “Don Diablo”, and “Levitating” was created independently of “Don Diablo”.

IV. G. “Don Diablo” and “Levitating” in Their Entireties

318. “Don Diablo” and “Levitating”, in their entireties, are very different songs. Outside of the musical building block similarity in the vocal melodies in portions of the Verses, the arrangement of elements in “Don Diablo” and “Levitating” is very different. The many differences in arrangement elements include the following.

- Most of the Introduction of “Levitating” by Dua Lipa features synthesizer only, while almost all instruments and background vocals are present in the Introduction of “Don Diablo”.
- The drums are present throughout “Don Diablo”, but the drums are largely absent in the Introduction and Re-introduction of “Levitating” by Dua Lipa.

- With the exception of the Bridge, guitars are present throughout “Don Diablo”, but the guitar in “Levitating” by Dua Lipa is only present during the Pre-chorus, Chorus, and Post-chorus sections.
- The drums and percussion rhythms in “Don Diablo” are in the style of Latin popular music, while “Levitating” by Dua Lipa is in a Dance-Pop / Disco style.

319. In addition, while there are commonplace similarities in the instrumentation used in “Don Diablo” and “Levitating”, there are also many differences in the instrumentation as charted immediately below.

Both “Don Diablo” and “Levitating” contain the following instrumentation:

- Vocals
- Electric guitar
- Bass guitar
- Drums
- Cowbell

“Don Diablo” alone contains the following instrumentation:

- Steel drums
- Acoustic guitar
- Electric piano
- Horn section
- Timbales
- Congas
- bongos

“Levitating” alone contains the following instrumentation:

- Talkbox/vocoder
- Synthesizers
- String section
- Synth bass
- Sub-bass

- Hand claps
- Shaker
- Triangle

320. In summary, on the basis of my analysis of the songs in their entireties, I found that there are no significant similarities between “Don Diablo” and “Levitating”, but there are significant differences. Importantly, while there is a generic melodic similarity between “Don Diablo” and “Levitating”, the melodic similarity is a musical building block that exists in prior art that was widely available before “Don Diablo”, as shown in the “Prior Art” section of this report. When combined with my findings regarding structure, harmony, rhythm, melody, and lyrics, I found that there are no structural, harmonic, rhythmic, melodic, or lyrical similarities, individually or in the aggregate, that suggest that any musical or lyrical expression in “Levitating” was copied from “Don Diablo”.

V. CONCLUSIONS REGARDING THE ANALYSIS OF **“DON DIABLO” AND “LEVITATING”**

321. On the basis of my musicological analyses, presented above, it is my professional opinion that there are no significant structural, harmonic, rhythmic, melodic, or lyrical similarities, individually or in the aggregate, between “Don Diablo” and “Levitating”. The only similarity at issue is that “Don Diablo” and “Levitating” include a rapidly sung descending melody in which notes are repeated.

322. First, rapidly sung melodies (sometimes termed “patter song” or “patter style”) have been a musical building block for centuries and (by way of example) exist in the public domain in operas by Mozart and Rossini and in operettas by Gilbert and Sullivan.

323. Second, the scale degrees in the descending melodies in “Don Diablo” and “Levitating” are significantly different. Thus, as defined in *The Harvard Dictionary of Music*, the pitches in the melody notes at issue function in significantly different ways.

324. Third, the descending melody at issue in “Don Diablo” has many differences as compared to the melody at issue in “Levitating”.

325. Fourth, descending melodies with repeating notes represent a musical building block that is commonplace in public domain piano works and popular songs that predate “Don Diablo”. Carl Czerny (d. 1857), a student of Beethoven, wrote rapidly descending melodies that embody the musical building block at issue, which also appears in the numerous versions of “Contestación a La Casa en el Aire” recorded throughout the 1970s, in “El Cafetal – El Caimán” as recorded by Juan Vincente Torrealba in 1975, and in the huge hit song, “Stayin’ Alive”, released in 1977 by The Bee Gees, to name only four examples among others transcribed and analyzed above. A wide array of works since “Don Diablo” also continues to use this common and preexisting musical building block. Taken together and separately, these many works do not support that anything in “Don Diablo” was copied by “Levitating”: instead, they support that “Levitating” was independently created.

326. “Don Diablo” is in a major key, but, by way of difference, “Levitating” is in a minor key. Thus, the “modality” of “Don Diablo” is different from the modality of “Levitating”. Moreover, the chord progressions are significantly different in “Don Diablo” as compared with “Levitating”. Therefore, the musical building block descending melodies not only consist of significantly different scale degrees, but those melodies are also heard within significantly different harmonic (chord progressions) and modal (major as opposed to minor keys) contexts in “Don Diablo” and “Levitating”.

327. The underlying instrumental music is very different in “Don Diablo” and “Levitating”.

328. “Don Diablo” and “Levitating” in their entireties are significantly different. Outside of the similar use of a musical building block in the vocal melody in the Verse, the overall structure and the arrangement of elements throughout the songs are significantly different. The vocal melody at issue is in a portion of the Verses of “Don Diablo” and “Levitating” but the vocal melodies in other portions of the Verses and in the entirety of the rest of the songs are significantly different.

329. Upon filtering musical building blocks and commonplace elements found in prior art, only isolated and fragmentary notes remain between “Don Diablo” and “Levitating”.

330. The analysis above demonstrates that any similarities between “Don Diablo” and “Levitating” are not the result of copying but are instead the result of independent creation.

VIII. SUMMARY OF CONCLUSIONS

331. My comparative musicological analyses of the similarities and differences between (1) “Wiggle” and “Levitating” and (2) “Don Diablo” and “Levitating” include assessing (a) whether or not there is musicological evidence of copied expression in “Levitating” from either “Wiggle” or “Don Diablo”, (b) whether or not any similarities or differences are significant from a musicological perspective, and (c) whether or not any shared similarities comprise commonplace musical building blocks, public domain elements, or otherwise exist in “prior art” (i.e., compositions that predate “Wiggle’s” 1979 release), which were filtered out from consideration.

332. On the basis of my musicological analyses, which are presented above, it is my professional opinion that there are no significant structural, harmonic, rhythmic, melodic, or lyrical similarities, individually or in the aggregate, between (1) “Wiggle” and “Levitating” and (2) “Don Diablo” and “Levitating”. The only similarity at issue is that “Wiggle”, “Don Diablo”, and “Levitating” include a rapidly sung descending melody in which notes are repeated.

333. First, rapidly sung melodies (sometimes termed “patter song” or “patter style”) have been a musical building block for centuries and (by way of example) exist in the public domain in operas by Mozart and Rossini and in operettas by Gilbert and Sullivan.

334. Second, the scale degrees in the descending melodies (1) in “Wiggle” and “Levitating” and (2) in “Don Diablo” and “Levitating” are significantly different. Thus, as defined in *The Harvard Dictionary of Music*, the pitches in the melody notes at issue function in significantly different ways.

335. Third, the descending melodies at issue in “Wiggle” and “Don Diablo” have many differences as compared to the melody at issue in “Levitating”.

336. Fourth, descending melodies with repeating notes are commonplace in public domain piano works and popular songs that predate “Wiggle” and “Don Diablo”. Indeed, Carl Czerny (d. 1857), a very well-known composer of many piano studies books and a notable student of Beethoven, wrote rapidly descending melodies that embody the musical building block at issue. The same building block appears in the numerous versions of the popular Latin American song “Contestación a La Casa en el Aire” recorded in 1958 and covered and re-released many times throughout the 1970s, in the United States and elsewhere, in “El Cafetal – El Caimán” as recorded by Juan Vincente Torrealba in 1975, and it also appears in the huge hit song, “Stayin’ Alive”, released in 1977 by The Bee Gees (two years prior to “Wiggle” and three years prior to “Don Diablo”), to name only four examples based on a non-exhaustive search. Several other examples of descending melodies with repeating notes in prior art are transcribed and analyzed above.

337. A wide array of works, in various genres and various countries, continues to use this common and preexisting musical building block based on repeated notes that descend along a scale, which did not arise with “Wiggle” or “Don Diablo”.

338. While Plaintiffs’ “Wiggle” and “Don Diablo” are in major keys, by way of difference, “Levitating” is in a minor key. Thus, the “modality” of “Wiggle” and “Don Diablo” is different from the modality of “Levitating”. Moreover, the chord progressions are significantly different in “Wiggle” as compared with “Levitating” and in “Don Diablo” as compared with “Levitating”. Therefore, the musical building block descending melodies not only consist of melodic differences, including completely different scale degrees, but those melodies are also heard within significantly different harmonic (chord progressions) and modal (major as opposed to minor keys) contexts in Plaintiffs’ two songs and “Levitating”.

339. The underlying instrumental music is significantly different between (1) “Wiggle” and “Levitating” and between (2) “Don Diablo” and “Levitating”.

340. “Wiggle” and “Levitating” and, “Don Diablo” and “Levitating”, in their entireties are significantly different. Outside of the similar use of a musical building block in the vocal melody in the Verse, the overall structure and the arrangement of elements

throughout the songs are significantly different. The vocal melodies at issue are in a portion of the Verses of the three songs; the vocal melodies in the other portions of the Verses and in the entirety of the rest of the songs are significantly different between “Wiggle” and “Levitating” and “Don Diablo” and “Levitating”.

341. Upon filtering musical building blocks and commonplace elements found in prior art, only isolated and fragmentary notes remain between “Wiggle” and “Levitating” and between “Don Diablo” and “Levitating”.

342. On the basis of the above, it is my professional opinion that any similarities between “Levitating” and “Wiggle” and “Don Diablo” are unremarkable, arise from basic musical ideas, and exist in many other works before and after Plaintiffs’ that employ the musical building block of repeated notes on a descending scale, frequently done in a “patter song” style. The musical analysis and examples herein do not suggest anything in “Wiggle” or “Don Diablo” was copied by “Levitating”, and demonstrates that “Levitating” was independently created.

Respectfully submitted,

December 22, 2023

By: Lawrence Ferrara, Ph.D.

A handwritten signature in black ink, appearing to read 'Lawrence Ferrara', is written over a horizontal line.

For: Lawrence Ferrara, Inc.

APPENDIX 1

**LAWRENCE FERRARA, Ph.D.
PROFESSOR OF MUSIC
DIRECTOR EMERITUS
MUSIC AND PERFORMING ARTS PROFESSIONS
THE STEINHARDT SCHOOL
NEW YORK UNIVERSITY**

Educational Background

B.A.	Music	Montclair State University
M.M.	Music	Manhattan School of Music
Ph.D.	Music	New York University

Teaching Background

1979-84	Assistant Professor of Music	New York University
1984-92	Associate Professor of Music, Tenured	New York University
1992-present	(Full) Professor of Music	New York University
1995-2006	Professor of Music and Department Chair	New York University
2006-2011	Professor of Music and Director, Music & Perf Arts	New York University
2011 (Sept.)-present	Professor of Music and Director Emeritus	New York University

Selected Professional Activities

New York: 2023 (Nov.), American Musicological Society GNY, participation on a panel and presentation regarding AI and musicology, panel members were from the West Coast, NY, and the U.K. The international audience was from LA to Berlin.

Los Angeles: 2023 (Oct.), The Los Angeles Intellectual Property Law Association, participation on a panel regarding music copyright, via Zoom

New York: 2023 (Sept), American Musicological Society GNY, peer-reviewed presentation regarding Music Copyright Litigation and Musicology, in person at Wagner College

AMS, Zoom: 2-week American Musicological Society Teaching Music History Conference, June 16, 20-23 and 26-30, 2023, attended more than twenty presentations via Zoom with participants from around the world

Cambridge,
Mass: 2023 (Feb.), invited lecture on music copyright at Harvard University Law School, class on Music and Media Law, via Zoom

Cambridge,
Mass: 2022, invited lecture on music copyright at Harvard University Law School, class on Music and Media Law, via Zoom

Los Angeles: 2022, invited CLE lecture on music copyright for members of the Los Angeles Copyright Society via Zoom

Los Angeles: 2021, invited CLE lecture on music copyright for lawyers at Netflix via Zoom

Cambridge,
Mass: 2021, invited lecture on music copyright at Harvard University Law School, class on Music and Media Law, via Zoom

New York: 2021, participation on a panel regarding curricular development in musicology, American Musicological Society GNY, via Zoom

New York: 2020, invited music copyright presentation at Columbia University Law School, class on Federal Courts Litigation: Trademark and Copyright, delivered via Zoom

Cambridge,
Mass: 2020, invited lecture on music copyright at Harvard University Law School, class on Music and Media Law

New York: 2019, American Musicological Society GNY, peer-reviewed Keynote presentation regarding Music Copyright and Musicology, at New York University

Cambridge,
Mass: 2019, invited lecture on music copyright at Harvard University Law School, class on Music and Media Law

New York: 2019, Download Digital Tech Conference hosted by Davis Wright Tremaine, invited participation on a panel regarding music copyright

New York: 2018, invited music copyright presentation at Columbia University Law School, class on Federal Courts Litigation: Trademark and Copyright

Cambridge,
Mass: 2018, invited lecture on music copyright at Harvard University Law School, class on Music and Media Law

New York: 2018, American Musicological Society GNY, invited participation on a panel hosted at Columbia University regarding Leadership and the Future of Musicology

New York: 2017, American Musicological Society GNY, peer-reviewed Keynote presentation regarding Philosophy and Musicology, at New York University (April)

New York: 2017, invited music copyright presentation at Columbia University Law School, class on Federal Courts Litigation: Trademark and Copyright

Cambridge,
Mass: 2017, invited lecture on music copyright at Harvard University Law School, class on Music and Media Law

New York: 2017, American Musicological Society GNY, invited presentation and participation on a panel hosted at Columbia University regarding Leadership in Musicology (January)

Los Angeles,
California 2017, Southwestern Law School Annual Media Law Conference, invited panel member regarding music copyright

New York: 2016, Loeb & Loeb, Annual IP/Entertainment Law CLE Conference, invited panel member regarding music copyright

New York: 2016, The Copyright Society of America (NY), invited panel member regarding music copyright

New York: 2016, American Musicological Society GNY, peer-reviewed presentation regarding Corpus Analysis in musicology

Cambridge,
Mass: 2016, invited lecture on music copyright at Harvard University Law School, class on Music and Media Law

New York: 2016, invited lecture on music copyright at Fordham University Law School, class on Advanced Copyright

Cambridge,
Mass: 2015, invited lecture on music copyright at Harvard University Law School, class on Music and Media Law

New York: 2015, American Musicological Society GNY, invited presentation and participation on a panel hosted by The Juilliard School at Lincoln Center regarding Changes in Music Delivery and Reception in the 21st Century

Cambridge,
Mass: 2014, invited lecture on music copyright at Harvard University Law School, class on Music and Media Law

New York: 2014, invited music copyright presentation at Columbia University Law School, class on Federal Courts Litigation: Trademark and Copyright

- New York: 2014, American Musicological Society GNY, peer-reviewed presentation on musicological issues regarding the composition embodied in a sampled portion of a sound recording in music copyright claims
- New York: 2014, International Double Reed Society Conference, invited presentation on the musicological elements and implications in *Newton v. Diamond*
- Cambridge,
Mass: 2013, invited lecture on music copyright at Harvard University Law School, class on Music and Media Law
- New York: 2013, invited music copyright presentation at Columbia University Law School, class on Federal Courts Litigation: Trademark and Copyright
- New York: 2013, American Musicological Society GNY, peer-reviewed presentation including an analysis of the musical composition in “The Phantom Song” from *Phantom of the Opera* by Andrew Lloyd Webber related to *Repp v Webber*
- New York: 2012, invited music copyright presentation at Columbia University Law School, class on Federal Courts Litigation: Trademark and Copyright
- Cambridge,
Mass: 2012, invited lecture on music copyright at Harvard University Law School, class on Music and Media Law
- Sweden: 2011, interviewed (in New York) and featured in the Swedish TV series, “The Story Behind the Hit Song,” regarding music copyright
- Cambridge,
Mass: 2011, invited lecture on music copyright at Harvard University Law School, class on Music and Media Law
- New York: 2010, invited presentation and moderator of a panel on sound recording sampling and music copyright for The Copyright Society of the United States, New York Chapter
- New York: 2010, invited music copyright presentation at Columbia University Law School, class on Federal Courts Litigation: Trademark and Copyright

Montclair,

NJ: 2010, invited to give the Inaugural Jack Sacher Memorial Research Lecture (on music analysis in music copyright matters) for the opening of the John Cali School of Music at Montclair State University

New York: 2010, invited lecture on music copyright followed by a dialogue with Academy Award winner, F. Murray Abraham, for The Pathfinders Series at The First Presbyterian Church of New York City

New York: 2008, invited music copyright presentation at Columbia University Law School, class on Federal Courts Litigation: Trademark and Copyright

Ireland: 2007, interviewed on Irish radio regarding music copyright

New York: 2007, Invited opening and closing lectures for a Conference co-sponsored by The New York Philharmonic and the Finnish Consulate on Music regarding Music Learning and Performance in Finland

New York: 2006, invited panelist at the CMJ Conference at Lincoln Center regarding music copyright

New York: 2006, invited panelist at the Remix Conference regarding music copyright

New York: 2006, invited presentation for the New York Institute for the Humanities regarding music analysis and music copyright

New York: 2006, invited Keynote Address for The Mastery of Music Teaching Conference sponsored by The Metropolitan Opera Guild and The New York Philharmonic

Washington

D.C.: 2005, invited panelist/presenter at the Future of Music Policy Summit regarding music copyright and *Newton v Diamond*

New York: 2005, invited panel and group discussion leader at the United Nations regarding rhythm in the music of multiple cultures as part of the U.N.'s World Summit on the "Information Society" and the United Nations Information and Communications Technology Task Force

- Cambridge,
Mass.: 2005, invited panelist/presenter at Harvard University Law School's Berkman Center in a national conference regarding technology and intellectual property
- New York: 2005, invited music copyright presentation at Columbia University Law School, class on Federal Courts Litigation: Trademark and Copyright
- Los
Angeles: 2005, invited lecture regarding music analysis and music copyright in Los Angeles for an NYU Alumni event
- Orlando: 2005, invited lecture regarding music copyright and music analysis in Orlando, Florida for an NYU Alumni event
- Hawaii: 2004, invited workshop presentation and session chair regarding methodology for the analysis of a J. S. Bach organ prelude for the International Conference on Arts and the Humanities
- Norway: 2003, invited series of lectures on music theory and analysis co-sponsored by the Music Theory and Composition Departments of the Norwegian Music Academy, and the Department of Philosophy at the University of Oslo
- New York: 2001, invited presentation and Chair of a panel at The United Nations regarding "Music within a Global Context."
- Italy: Summer 1993 & Summer 1994, Visiting Professor at University of Pisa teaching music analysis, performance practices, and philosophy of music

As a pianist, performed solo recitals and as an accompanist in the United States and Europe including on radio and television, recordings released by Orion Master Recordings and Musique international, and performed for musical theatre shows, accompanist to internationally acclaimed singers, as a session pianist in pop styles, and as leader of my own dance band.

At New York University's Steinhardt School: Director of Music Performance Programs from 1980-1985, Director of Ph.D. Programs from 1986-1995, Chair of the Department from 1995 – 2011, and Director of all Music and Performing Arts studies (undergraduate through Ph.D.) in The Steinhardt School at New York University from 2006-2011. Named "Director Emeritus" of Steinhardt Music and Performing Arts in 2011. Currently on the full-time faculty in music theory and music history.

Currently a member of the Editorial Board of the journal *Music and Moving Image* (University of Illinois Press) and on the board of Editorial Consultants for the journal *Philosophy of Music Education Review* (Indiana University Press).

Awards

1972	Stoekel Fellowship, Yale University Graduate School of Music
1985	Presidential Research Fellowship, NYU
1988	Co-PI, Federal Grant for Research
1989	Co-PI, Federal Grant for Research renewed
1996	Daniel E. Griffiths Award for publication regarding the analysis of Arthur Schopenhauer's works on music (Cambridge University Press, 1996).

Membership in Professional Organizations

American Musicological Society

Society for Music Theory

Publications: Books

- Ferrara, Lawrence *Philosophy and the Analysis of Music: Bridges to Musical Sound, Form and Reference* (Greenwood Press) 1991
- Ferrara, Lawrence and Kathryn E. Ferrara *Keyboard Harmony and Improvisation* (Excelsior Music Publishers) 1986
- Phelps, Roger, Lawrence Ferrara and Thomas Goolsby *A Guide to Research in Music Education*, Fourth Edition. (Scarecrow Press/The Rowman & Littlefield Publishing Group) 1993
- Phelps, Roger, Lawrence Ferrara, *et al* *A Guide to Research in Music Education*, Fifth Edition (Scarecrow Press/The Rowman & Littlefield Publishing Group) 2005

Courses Taught at NYU

- Aesthetic Foundations of the Arts: for Ph.D. students
- Aesthetic Inquiry: for Ph.D. students
- Arts Heritage and Criticism: for M.M. students
- Classic Era Music, Analysis: for M.M. students
- Contemporary Music, Analysis: for M.M. and Ph.D. students
- Dissertation Proposal Seminar: for Ph.D. students
- Keyboard Harmony and Improvisation: for B.M. students
- Music Copyright, Landmark Cases: for B.M. students
- Music Criticism: for M.M. students
- Music History III, 19th Century: for B.M. students

Music History IV, 20th & 21st Century: for B.M. students

Music Performance Practices: for M.M. students

Music Reference & Research Methods: for M.M. and Ph.D. students

Music Theory and Analysis: for B.M. students

Seminar in Music Theory & Analysis: for M.M. and Ph.D. students

Music Copyright

A music expert in music copyright issues for more than twenty-five years providing opinions for plaintiffs and defendants

An active music copyright consultant for record, music publishing, and motion picture companies, and for individuals in the United States and abroad

An invited guest lecturer in music copyright in classes at Columbia University Law School (approximately 10 presentations over a period of 15 years) and Harvard University Law School (13 consecutive annual presentations through 2023)

A panel moderator in 2010 and a panel member in 2016 for The Copyright Society of the United States (NY), and a presenter for conferences and meetings regarding music copyright for CLE credits at Loeb and Loeb (NY) in 2016, Southwestern Law School (LA) in 2017, Davis Wright Tremaine (NY) in 2019, Netflix in 2021, the Los Angeles Copyright Society in 2022, and the Los Angeles Intellectual Property Law Association in 2023

Peer-reviewed presentations regarding music copyright for the American Musicological Society (GNY) in 2013, 2014, 2016, 2019 and 2023

As a music copyright consultant, provided musical analyses on behalf of artists and/or composers in the United States, Canada, Europe, Scandinavia, and Australia such as:

Taylor Swift, Ed Sheeran, Lady Gaga, Kendrick Lamar, Cardi B, Beyoncé, Chris Brown, Katy Perry, Eminem, Billie Eilish, Justin Bieber, Dua Lipa, Paul McCartney, Elton John, Billy Joel, Michael Jackson, Alicia Keys, Lizzo, The Weeknd, Drake, Rihanna, Jennifer Lopez, Jay Z, Gwen Stefani, Sam Smith, Brad Paisley, Lil Nas X, Jimmy Page, Robert Plant, Andrew Lloyd Webber, Lin-Manuel Miranda, Bono, P!nk, Olivia Rodrigo, Pharrell Williams, Busta Rhymes, Charlie Puth, Max Martin, Flo Rida, Ariana Grande, Adele, Nicki Minaj, Kanye West, Gloria Estefan, Juice WRLD, Dr. Dre, Prince, Bruce Springsteen, Janet Jackson, David Guetta, RuPaul, Sean Combs, Ludacris, Mariah Carey, Bruno Mars, Usher, will.i.am, Roddy Ricch, Post Malone, Cyndi Lauper, Luis Fonsi, Britney Spears, Madonna, Carrie Underwood, Shakira, Trey Songz, Mtume, Ice Spice, Missy Elliott, Travis Scott, J. Cole, Bryson Tiller, 50 Cent, Timbaland, Dr. Luke, Wyclef Jean, James Brown, Marc Anthony, Hillary Duff, Notorious B.I.G., DMX, T. I., Luther Vandross, Lionel Richie, Enrique Iglesias, Tom Petty, Tupac, Fergie, Toby Keith, Mary J. Blige, Carly Rae Jepsen, Don Henley, Marshmello, The-Dream, Ginuwine, Jessie J, and others, as well as numerous groups such as Led Zeppelin, U2, The Black Eyed Peas, 5 Seconds of Summer, Maroon 5, The Chainsmokers, Jonas Brothers, Migos, Macklemore and Ryan Lewis, Nirvana, Beastie Boys, Paramore, The White Stripes, OneRepublic, Portugal. The Man, One Direction, The Black Keys, Nickelback, Daft Punk, N'Sync, LMFAO, Wu Tang Clan, Train, 3 Doors Down, AC/DC, Dropkick Murphys, SWV, C & C Music Factory, Linkin Park, El Gran Combo, Motley Crue, The Ramones, War, and Green Day.

Deposition and/or Trial Testimony Since 2016

- (1) Copeland v. Bieber et al. in 2016
- (2) Skidmore v. Led Zeppelin et al. in 2016
- (3) Gray, et al. v. Perry, et al. in 2018
- (4) Gray, et al. v. Perry, et al. in 2019
- (5) Hall et al. v. Swift, et al. in 2021
- (6) Ambrosetti v. OCP & Farrell, et al. in 2022
- (7) Brunson v. Capitol CMG, Inc., et al. in 2022

(8) Sound and Color, LLC v. Smith *et al.* in 2023

(9) Griffin v. Sheeran, *et al.* in 2023

Fee rates for Professional Services

\$495 per hour plus travel-related time and expenses

